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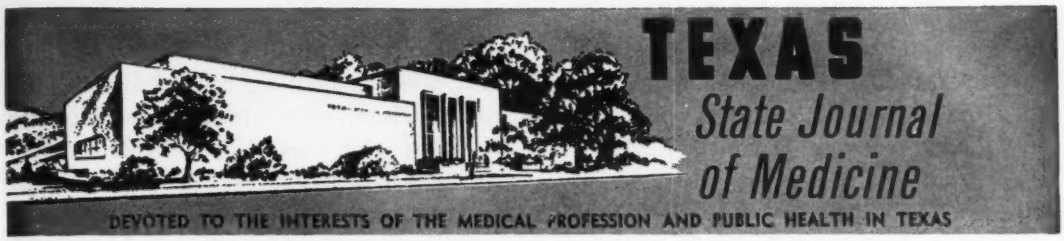

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A Paramount Issue

A key health issue in the State Legislature in 1961 is the implementation of the vendor's medical care program for Texans who can qualify for Old Age Assistance.

Texas is one of eight states which has not initiated a vendor medical payment plan first authorized nationally in 1950. Implementation of the program will depend on appropriation of State funds by the Texas Legislature this year. Payments would be made directly to doctors, hospitals, or nursing homes, or to any vendor of medical goods or services, as permitted by the Legislature. Recipients would not receive increases in their assistance grants, but the State would set aside up to $12 per person each month for vendor or direct payments for medical care. Approximately 223,000 Texans are now recipients of Old Age Assistance.

The House of Delegates has pledged the cooperation of the Texas Medical Association in support of the appropriation of funds by the State Legislature for the vendor's medical care program. This action was reiterated in September, 1960, by the Association's Executive Board, which stressed that the plan should provide medical care of high quality, and should embrace such basic principles as free choice of physician and preservation of the traditional doctor-patient relationship. Association policy emphasizes that the vendor's medical care program should be limited to those who need help, and should not include those who can provide for themselves.

The Congress of the United States, at its special session late last summer, enacted the Kerr-Mills bill, now Public Law 86-788. It amended the Old Age Assistance program to provide an increase in federal matching funds for those

states which have vendor medical care plans. For Texas, the formula will be $3 federal for every $1 appropriated by the State. The Kerr-Mills law also established a new program of medical aid for those 65 years of age and above who are not receiving Old Age Assistance benefits. Individual states have the full prerogative of establishing the scope of benefits, standards of eligibility, administrative mechanism, and payments for services. Before this phase of the Kerr-Mills bill can be initiated, however, Texas voters must amend the State Constitution to permit the Legislature to establish the program.

The Kerr-Mills bill carried an endorsement of the American Medical Association. AMA officers have pointed out that implementation of this legislation at the state level will provide a program of health care for the aged who are needy and will make Forand-type legislation totally unnecessary.

As anticipated, however, advocates of national compulsory health insurance for the aged through the mechanism of Social Security are unhappy with the Kerr-Mills approach. They have stepped up the campaign to discredit this legislation. They point out that this program is inadequate, that the Social Security mechanism is the most effective for providing medical care for the aged, and that the Kerr-Mills bill is a pauper's bill inasmuch as the individual must declare himself needy to qualify for benefits.

The incoming Democratic administration is moving ahead with vigor to enact a medical care program for the aged under the provisions of Social Security. Congressional hearings appear certain, and there will be loud rumblings in regard to the inadequacy of the Kerr-Mills approach and the need for Forand-type legislation.

There are several significant differences between these programs:

1. The Kerr-Mills law is designed for persons older than 65 who really need help to pay for health care. Under Forand-type legislation, care would be provided regardless of need to all covered under Social Security.

2. Kerr-Mills benefits, based upon need and local determination, are much broader. They may include any type of medical care which the individual state chooses to provide. Forand-type legislation authorizes hospitalization, nursing home care, and some surgical care.

3. The Kerr-Mills program is voluntary, not compulsory. It will supplement, not supplant, voluntary health insurance or prepayment. Forand-type legislation would lead to the decline, if not the end, of private health insurance, which now provides coverage for 72 per cent of the entire population and an estimated 50 per cent of those over age 65.

4. The Kerr-Mills law will be administered locally. It leaves matters up to the individual states by giving them the prerogative to set up their own programs in their own way. The underlying theory is that each state knows its own particular problems better than the federal government. Forand-type legislation calls for the U. S. Department of Health, Education, and Welfare to promulgate and administer the program.

5. The Kerr-Mills approach is more economical. Assistance would be provided only to those who really need help. Forand-type legislation would be staggeringly expensive. Social Security taxes already are scheduled to reach 9 per cent of the first $4,800 of pay roll by 1969. A government program of health care for all Social Security beneficiaries could bankrupt the Social Security trust fund, which already has incurred future obligations totaling 360 billion dollars.

AMA leaders have urged physicians to support the implementation of the Kerr-Mills law in individual states. They believe that this program will provide for the aged who are needy, and that Congress should delay further consideration of Forand-type legislation until the Kerr-Mills law has been given an opportunity to prove itself.

This will be the paramount medical issue in Congress this year.

Healing the Whole Man

On January 24, Houston's Institute of Religion dedicates a new $600,000 building in the Texas Medical Center. Dr. E. Vincent Askey of Los Angeles, President of the American Medical Association, is the speaker for the dedication dinner that evening in the Grand Ball Room of the Rice Hotel.

The Institute, now 6 years old, has pioneered on the principle of combining medical practice with religious insight to heal the whole man. Interestingly, both the words *heal* and *whole* derive from the same Anglo-Saxon root.

Man cannot be fragmented into separate sections of "spirit," "mind," and "body." He is, instead, a spirit-mind-body entity, and when ill, must be treated as a whole if he is to be made whole again. To this concept the Institute's curriculum is geared: It combines instruction with inspiration. Enrolled in courses to develop the ideal doctor-nurse-minister healing team are medical students and physicians, seminarians and ministers, and student and graduate nurses. The Institute's curriculum has been termed "the first planned program of its kind in any medical center in the United States."

Ministerial students, serving as hospital-chaplain interns, average more than 25 hours per week visiting in hospital wards. During its first four years, the Institute had 724 students enrolled from the United States and Europe, and from as distant a nation as New Zealand.

Counseling for troubled persons is an integral part of the Institute's program, and is given without charge. Grateful recipients of these services often make voluntary contributions, however.

The Institute's Director is Dawson C. Bryan, D.D., who was pastor of the First Methodist Church of Houston before accepting the post. Its Board of Trustees is comprised of a number of distinguished churchmen and laymen. Faculty and staff include three pastoral-care professors and chaplain supervisors at M. D. Anderson Hospital and Tumor Institute, and Memorial, Hermann, and Methodist Hospitals. Other cooperating institutions in the Medical Center are Baylor University College of Medicine, Texas Woman's University College of Nursing, Texas Institute of Rehabilitation and Research, and Veterans Administration Hospital. In addition, Hedgecroft Hospital expects to be affiliated with the Institute by Spring.

Views of A Country Physician

Since the November elections many physicians may have become discouraged as to the future of medicine. They probably feel let down to a considerable extent in their personal belief that the private practice of medicine can be preserved, and have relaxed in their efforts to discourage a medical health bill by Congress or other interested parties. This is not the time to relax, however, but a time to reinforce our efforts and forces, while there is still an opportunity to influence medical legislation.

Members of the medical profession can expect a new, intense onslought from proponents of socialized medical schemes. Too many politicians who ordinarily would not support any form of ill-advised medical care may well favor adverse health legislation this year. The foregoing idea is old to most of us. Nevertheless, we cannot be stimulated too often to oppose the forces that would wreck the world's best medical care. I realize that many politicians are frequently swayed from their better judgment by a big show of numbers from their constituents. Well organized groups which sponsor the various schemes of socialized medicine are getting their show of numbers. We should get the antidote for this poison, get it soon, and keep it in readiness at all times.

I believe that the solution is two-fold. First, we should use the show of numbers tactics employed by our opponents. Our families, friends, neighbors, ministers, attorneys, patients—in fact, anyone who is sincerely interested in preserving the American system of free

enterprise and who will listen—should be urged to phone, wire, or write Congressional representatives in Washington, most of whom are interested. They should be written not just once, but every time a measure to promote socialized medicine, or any socialized scheme, is raised. With a little work and effort we, too, can influence the politicians.

Second, I believe our appeals to the politician's reason would not be in vain. We should point out, again and again, that the proposed "helpful medical bills" are not only an absurd waste of taxpayer's money, but that most elderly patients are happily cared for by their families—that it is not only the duty of sons and daughters to take care of their parents in waning years, but a privilege which the government should never deny. Certain elderly patients who are without children able to pay for the medical care are provided for by State tax supported hospitals and welfare agencies. Others carry hospital insurance, many receive care in veterans hospitals, and many are given hospital care by local churches and service clubs. Numerous others are seldom in need of medical care and do not care to be made hypochondriacs by any government.

In regard to the few aged people who might still need medical care, I believe the medical profession would rather give it to them free of charge than to be hamstrung by governmental interference and red tape. *I know for certain that this country doctor would.*

Would it be feasible for members of the medical profession to appeal to the common sense or basic reasoning of those who sponsor socialized medicine? I believe it would if our beliefs were continually and sincerely presented at every given opportunity, public or private.

—C. R. HALEY, M.D., Chairman,
Committee on Rural Health,
Texas Medical Association.

Possible Doctor Draft

Several news releases issued recently by officials of the Department of Defense have led to speculation that there may be a new "doctor draft" early in 1961 unless more interns volunteer for reserve commissions. According to a story in the November 26, 1960, issue of the *Journal of the American Medical Association,* for example, Dr. Frank B. Berry, assistant defense secretary in charge of health and medical affairs, stated that as many as 650 physicians may be called next March.

Dr. Berry said that applicants for reserve commissions have totaled 1,546 this year, as compared with 2,278 for last year. He commented, however, that he had a "good expectation" that this warning would produce enough volunteers to avoid starting any new draft of physicians.

The Air Force needs an additional 400 physicians, and the Army and Navy need between 100 and 140 physicians each in the year beginning July 16, 1961. There has not been a doctor draft in four years.

Objectives for '61

"We have each had our own special celebration at Christmas . .. . we have felt the Yuletide blessings and tried as Scrooge 'to honor Christmas in our hearts and keep it all the year.'"

One of the best New Year's resolutions for each of us would be to upgrade and continue our education. By increasing it, we will enhance the stature of medicine in our State. We should take advantage of the varied teaching programs available, not only in Texas but nationally and internationally.

With our different talents, abilities, and accomplishments, we have to examine and analyze the various programs that will increase our armamentarium. For instance, the Texas Medical Association's ninety-fourth Annual Session in Galveston on April 23-25, 1961, represents one of the truly outstanding scientific meetings of the year, not only in this State, but in the Southwest. Physicians should plan now to take advantage of, and should continue to participate in, this and other informative programs.

In addition to participation in medical programs, I would again direct the attention of Association members to their responsibilities as citizens, and would encourage each one to participate actively in his church, civic clubs, and other community programs, including programs on aging and child welfare.

There is a great need for us to be aware of our responsibilities, not only in health matters but also in community affairs. A preeminent need is to reaffirm the sense of individual obligation to give good medical care. Personal responsibility and initiative have been, in many instances, a natural characteristic of the doctor. It is responsible, to a large extent, for our nation's progress in medical care.

We must assume our responsibilities to our people, and must help stem the seemingly inexorable march toward automation, reemphasizing the human, distinctive, personal practice of medicine. In 1961, let us join together in fighting the state of mental lethargy and inertia prevalent not only in our society as a whole, but also among members of the medical profession.

May Owen

A column for readers' assents, dissents, and comments, selected monthly by the official advisory committee of the Texas State Journal of Medicine

Galveston Physician Disagrees With Gentry's Views

The following communication was received from Dr. John L. Otto, who is affiliated with the Titus Harris Clinic in Galveston.

Regarding Mr. Ernest Gentry's recent editorial in the [November, 1960] TEXAS STATE JOURNAL OF MEDICINE entitled "Problem of Narcotics," please refer to an editorial I wrote at the invitation of the editor published in the February, 1953, JOURNAL, vol. 49, pp. 56-57. This article outlines the opposite viewpoint to that expressed by Mr. Gentry.

In rebuttal to Mr. Gentry's present article:

1. *He states, "Some persons allege that the imposition of severe penalties for peddlers of narcotic drugs has had no beneficial effect."* It is true that to the present severe penalties have not discouraged peddlers, but it does not follow that anyone is recommending that these penalties be reduced. On the contrary, they should be increased and a continuing effort made to enforce the laws against peddlers. The important point is to take the profit out of peddling.

2. *He mentions addiction prone personalities.* I agree there will always be this type of person. The question is, to what will he become addicted: alcohol, barbiturates, tranquilizers, or opium? The morphine addict with a continuing legal supply is ten times less troublesome to himself, his family, and society in general than the alcoholic or barbiturate addict. Attempts were made for many years to enforce the prohibition of alcohol with no success, and all of us old enough to remember are aware of the chaos that existed with the vice and crime financed by bootleg profits. The same condition exists, to some extent, today with opium profits financing many other facets of illegal activities.

3. *He mentions that distribution of legal narcotics to addicts would increase the illicit traffic in narcotics.* This would depend on the manner in which it was done. Certainly, no one is recommending the indiscriminate dispensing of drugs. Strict, rigid control, even to the point of hypodermic injection in a clinic of each dose, might be necessary.

4. *He uses the example that addicted physicians' licenses are revoked to prove that an addict with a continuing supply cannot lead a useful life.* In most instances, these men are leading useful lives and their licenses are revoked because they are breaking the law in regard to the use of narcotics, not because of something they have done wrong in their practice.

A resolution supporting Mr. Gentry's views was introduced in the American Medical Association House of Delegates' Washington meeting November 28, 1960. This was referred to the Reference Committee on Public Health and Industrial Health, with extensive discussion. The Reference Committee recommended, and the House of Delegates passed the recommendation, that this matter be referred to the Committee on Narcotics of the Council on Mental Health. This Committee is studying the narcotic problem and, I hope, will soon come up with definite recommendations as to the best methods of improving a distressing situation. In the meantime, all physicians should cooperate to the fullest extent with the Treasury Department to enforce present laws.

—JOHN L. OTTO, M.D., Galveston.

HIP PROSTHESIS

Locked in The Acetabulum and the Shaft

P. M. GIRARD, M.D.
DALLAS, TEXAS

The author describes an appliance which he has developed—a dual lock type of prosthesis that minimizes disability in the elderly patient who has suffered a fresh subcapital fracture. Results obtained with the prosthesis in 105 cases are given.

THE INDICATIONS and contraindications for the use of hip prostheses are not within the scope of this presentation. Nevertheless, I believe that the use of a dual lock type prosthesis in the elderly patient with a fresh subcapital fracture minimizes disability.

The various causes of trouble in hip prostheses have been studied, and an attempt is being made to prevent some, or all, of these. Among general physical difficulties are: (1) urinary tract irritation or infection, (2) decubitus ulcer, (3) paralytic ileus, (4) hypostatic pneumonia, (5) phlebothrombosis, and (6) malnutrition. The cause of the troubles named is that the patient is unable to move freely because of pain or immobilization by casts or splints.

Mechanical troubles include (1) femoral neck split, (2) trochanter split, (3) shaft split, (4) splint or cast pressure decubitus, and (5) dislocation. The cause of these troubles is that the operator, in attempting a firm fixation of the prosthesis in the neck and/or in the shaft, drives the prosthesis so vigorously that splitting occurs. Bone texture in the area frequently is thin and porous because of the patient's age or atrophy of disuse after a year or more of nonunion. Adequate drilling or reaming of the neck or shaft in this type of bone frequently causes looseness of the prosthesis after it is seated.

In dislocation of the prosthesis, the head is displaced anteriorly, posteriorly, or superiorly. A recent survey by the Academy of Orthopedic Surgeons showed that the prosthesis became dislocated in 158 of 6,156 procedures. In anterior approaches the dislocation is usually anterior, whereas in posterior approaches it is frequently posterior. I have observed 2 superior dislocations in which a prosthesis with an intramedullary stem was used. Traction reduced one of these. In the other, traction pulled the shaft down, leaving the head above the acetabulum. The stem of the prosthesis came out of the medullary canal.

Preventive Measures

The general physical troubles enumerated previously can best be prevented by early and continuous unhampered movements of the patient. He is encouraged to turn frequently and to sit up, and is allowed to walk to the bathroom beginning full weight bearing, the morning after operation.

The mechanical troubles listed previously may be prevented by:

1. Snug or slightly loose application of the prosthesis, and insertion of the prosthesis by hand pressure only.

2. Locking the prosthesis head into the acetabulum, preventing dislocation.

3. Locking the prosthesis stem into the shaft to prevent the stem from coming out of the shaft or from rotating in it.

By observing these principles no cast or splint is necessary, nor are special nursing instructions, such as "avoid adduction or external rotation."

Operative Techniques

To use the dual lock curved stem type prosthesis (Fig. 1), any approach may be used. I prefer an "L" shaped incision on the lateral side of the trochanter and upper shaft, tailing the upper end toward the iliac crest to a point approximately 7 cm. behind the anterior, superior spine and 3 cm. below the iliac crest. Capsule structures which can be reached should be removed, as calcification and scar in the capsule will cause pain and stiffness.

The femoral head is removed. I prefer to extract the head using lion jawed femur holding forceps. The round ligament remnant is removed from the acetabulum.

With the patient's leg in 90 degree external rotation, the cross knee position, the operator drills three holes five-sixteenths of an inch in diameter parallel and near each other through the proximal cortex only at right angles to the shaft. Location of these holes is determined by using the prosthesis as a guide against the neck and shaft after proper washers have been selected. The holes are connected with a small osteotome, making a slot in the proximal cortex. If antiversion or retroversion of the neck in the prosthesis is desired, the slot may be placed to the medial or lateral side as desired.

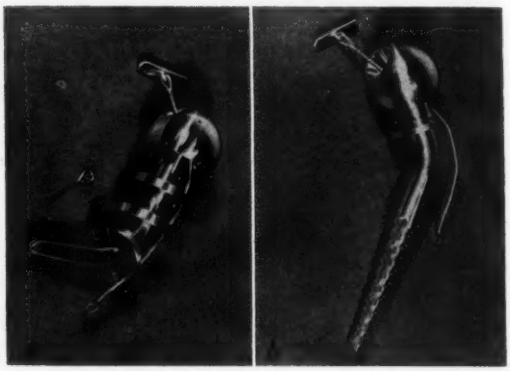

Fig. 1a. Curved stem dual lock prosthesis is useful when femoral neck is present, as in subcapital fractures.
b. Straight stem dual lock prosthesis is useful in cases in which there is no femoral neck.

The prosthesis is seated. The shaft should come out through the slot in the bone as a preliminary trial measure. If seating is satisfactory, the prosthesis is removed.

A hole five-sixteenths of an inch in diameter is drilled through the acetabulum in the superior center portion just inferior to the joint cartilage. The hole should be at the site of the superior attachment of the round ligament.

A curved forceps, preferably a tonsil or common bile duct right angle forceps, is passed around the hole inside the pelvis to loosen adjacent muscle attachment. The "T" bar is inserted in horizontal position; the vertical position is avoided because of the obturator nerve. To insure that the bar is locked inside the pelvis, the cable is pulled. A wire is attached to the end of the cable, and the wire is clamped to drapes out of the way.

The lead wire for the cable eyelet is passed through the prosthesis head and through the washers that are to be used. In the case of use of an asymmetrical washer, the wire should be passed through one of the holes in the washer to maintain its thick side in the desired position.

The prosthesis head with selected washer is reseated through the neck and shaft slot, during which

Dr. P. M. Girard of Dallas is a specialist in orthopedic surgery. He presented this paper before the Texas Orthopedic Association on April 11, 1960, in Fort Worth.

time tension is maintained on the cable. The stem is locked with a cotter key. The hip is conjugated, with the assistant maintaining traction on the leg and the internally rotating hip and the operator maintaining tension on the cable to avoid kinking. Finally, a screw is passed through the eye of the cable and through both cortices of the femur, locking the cable. Approximately 0.25 cm. of slack is allowed.

In the operative technique with dual lock self broaching intramedullary stem type prosthesis (Fig. 2), the femoral head and capsule are removed as described previously. The intramedullary stem is inserted by using a broaching type of movement until the prosthesis is seated firmly. The locking cable is inserted, as described previously, and the cable is passed through the head using the wire guide. The prosthesis is seated in desired neutral, antiversion, or retroversion position. The hip is conjugated by an assistant making traction on the leg and the operator keeping tension on the cable to avoid kinking. A small drill is passed through the eye of the cable to ascertain the point at which the hole to receive the locking screw is to be drilled. One-fourth of a centimeter of slack should be allowed. The drill should be passed either upward or downward and laterally while a search is made by feeling for the interval between the teeth on the stem of the prosthesis. The hole is drilled completely through both cortices. The locking screw is passed through the eye of the cable into the bone, between the teeth of the prosthesis, and through the distal cortex, locking the cable in position and the stem of the prosthesis into the shaft of the bone.

Postoperative Care

No cast or splinting of any type is necessary, nor are special nursing precautions. There is little or no need for narcotics, as these patients are remarkably free of pain. The patient is encouraged to turn frequently in any direction, and is encouraged to sit up on the side of the bed and in a regular straight chair (not a wheel chair) the next morning. He may walk to the bathroom the next morning or may sit on a portable commode chair at any time, which should eliminate the necessity for catheterization. Full weight bearing with the use of a cane for balance is encouraged the day after operation to assure the patient of the strength of the prosthesis and for other obvious reasons.

At no time should the patient be allowed to use a wheel chair or crutches, as many of these elderly people become wheel chair or crutch addicts regardless of the anatomic and/or functional result. Undesirable mental reactions such as depression, which may be a consequence of the patient's being informed that he has a "broken hip," are minimized by early ambulation.

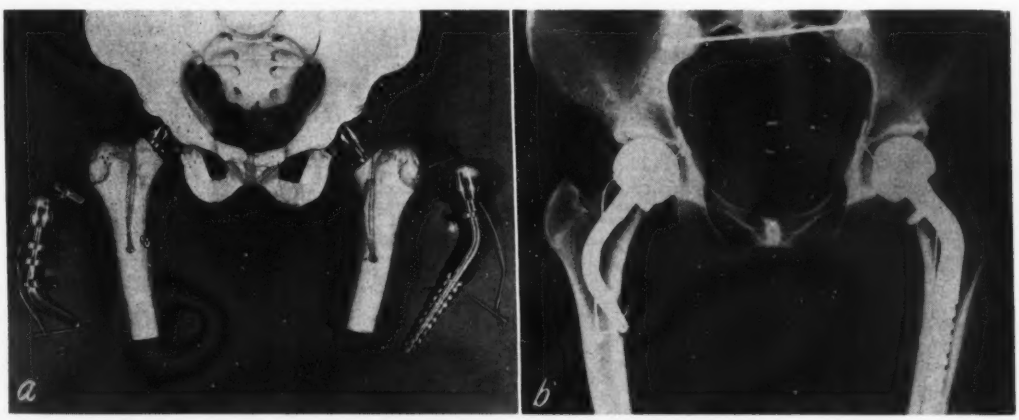

Fig. 2a. Skeleton model with curved stem and straight stem dual lock prostheses. **b.** Roentgenogram of Fig. 2a.

Comment

Nursing care, ordinarily difficult in this type of patient, has proved practical and easy in a limited number of cases after the use of one of the dual lock type of hip prostheses. The curved stem is used in the presence of a femoral neck; the straight stem when there is no neck.

The dual lock type of prosthesis is useful and practical in mental patients in whom cooperation is not possible. No special instruments are required for its insertion. It can be made of nonmagnetic S.M.O. type stainless steel to any size head desired, from

Fig. 3a. Roentgenogram in elderly patient with diagnosis of aseptic necrosis after subcapital fracture, in whom prosthesis had been in position 2 years.

b. In roentgenogram of elderly patient with fracture of base of neck, straight stem dual lock prosthesis is shown in position.

1⅝ to 1⅞ inches. The medium size (1 11/16 inches) is required in most cases. Because of the locking features, the same size stem of each prosthesis fits in any case.

I have used only the medium sized head in all of my cases. This simplifies the purchasing problem of the hospital as only one size of each of the two types of prostheses need to be kept on hand. By using this type prosthesis for early ambulation, the hospital stay of patients is reduced considerably.

Results

The first prosthesis of this type was inserted May 27, 1953. It is difficult honestly to evaluate results, as indicated by the report of the committee on study of hip prostheses in the July, 1959, issue of the *Journal of Bone and Joint Surgery*.[1] Results in this type of case should not be compared to function in the case of a normal hip, but to what might have been expected in a specific case without treatment.

With the earlier models a large number of fractures occurred in the prosthesis stem. These tested up to 250 pounds before showing deflection. The latest models, used in the past 2 years, show deflection only after more than 950 pounds of pressure have been applied. None has broken. A number of cables have frayed and broken in the head area after approximately 1 year's usage. This is of no significance, however, as after that time the cable's usefulness has ended.

In this geographic area, nine different surgeons and a number of resident surgeons have used this type of prosthesis in 166 cases. When it has been properly inserted, there have been no dislocations. In almost all cases, patients were elderly. They were predominantly female. A total of 124 curved stems and 42 straight stems have been inserted. In 61 cases the procedure was performed too recently for evaluation of results. In the other 105 cases, results are shown in Table 1.

TABLE 1.—*Use of Hip Prostheses in 105 Patients.*

Type of Results	No. of Cases	%
Excellent	14	13
Good	52	50
Fair	28	27
Poor	11	10

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Dr. Girard, 2601 Welborn Street, Dallas 19.

One of the most important instruments for gaining essential information about chronic diseases is the U. S. National Health Survey, a recent program of the Public Health Services. In the survey two methods are used: the interview method, which gives breadth, and the examination method, which gives depth. Both of these methods is described in detail and their advantages are outlined.

NEW INFORMATION ON CHRONIC DISABILITY

JOHN D. PORTERFIELD, M.D.
WASHINGTON, D. C.

IN RECENT YEARS so much time and attention have been devoted to discussion of chronic diseases that many feel the subject has been worn thin. Despite all the exhortations, chronic disease seems akin to the weather—it generates considerable conversation but nobody does anything about it. Yet I have high hopes. After all, such present-day miracles as cloud seeding promise to produce actual changes in the weather. I believe all agree that the miracles of modern medicine are no less world-shaking. If these miracles cannot be bent to the control of the most persistent health problems, I will be more than surprised.

The big question is, of course, where and how do we start? I have not included "when" in this question; the time is long overdue. If we do not start soon on some sustained and effective activities in the chronic disease area, the lag will be so great that we may never catch up.

Making the start may not be as difficult as some imagine. It may be as simple, in fact, as the gathering and dissemination of accurate, up-to-date information on the nature and dimensions of the problem. If physicians are all armed with the same background of precise, pinpointed facts, some common courses of action may be suggested.

One of the important instruments for gaining these facts is the U. S. National Health Survey, a fairly recent program of the Public Health Service. The operation of this survey will be described in some detail. Knowledge of its methodology will enable the reader to judge the validity of the data and the most effective ways in which they can be used.

The survey is essentially a source of new information on the chronic diseases. Specifically, it is helping to define the size of the chronic disease problem in terms of prevalence in the population as a whole and its social and economic impact on the country; and its shape in terms of such variables as demographic and health characteristics of the people who have chronic diseases.

In less than 4 years of operation, the National Health Survey is providing reliable answers to long sought after questions. Already a body of knowledge is beginning to emerge, for the lack of which health work has suffered throughout its development. From this knowledge should evolve a firm basis for current and future planning, not only by official health agen-

cies but by medical societies and other professional bodies.

The survey probably will not spark any sudden revolution in decision making on health problems. However, the compilation of a continuous, comprehensive body of facts on a subject during a period of years tends to effect fundamental changes in the ways of thinking about that subject. For example, if an appropriate question arises during the course of a conference or a clinical discussion, someone consults "Health Statistics from the U. S. National Health Survey." This sort of thing happens day after day, and gradually the new facts replace conjecture.

The Methods Used

The varied nature of the needs dictates the use of multiple survey methods. Some information can be obtained through interviews—for example, the circumstances of accidental injuries and the disability resulting from illness and injury. Other types of information can be secured only from actual health examinations—for example, precise diagnoses in medically acceptable terms, and physical and physiologic measurements. A good picture of chronic disease and its effects requires the use of both methods, and both are employed by the National Health Survey.

In the household interviews, which are conducted for the Public Health Service by the Bureau of the Census, respondents are asked a series of questions about illness, both acute and chronic; about injuries; about the limitation of their activity and loss of time from work or school because of illness or injury; about disability which confines them to bed; about visits to physicians and dentists; and about hospitalization. Information is also gathered on the ownership and use of special aids and prosthetic devices, nursing care at home, the health insurance carried by the family, and other pertinent facts. From these data 14 reports on various topics have already been published. Another half dozen are in the making, and still more are in the planning stage.

The second kind of survey—the health examination—consists of a special examination which can be given in a single visit on a uniform basis to a representative sample of the population. In developing this technique it was necessary to do a great deal of pioneering in staffing and training the examining teams, in experimenting with various kinds of facilities and equipment, and in developing methods for processing people and assuring their cooperation in a non-compulsory examination.

The examination which finally emerged is not, of course, a complete physical examination, nor is it a substitute for a visit to the patient's own physician—facts emphasized to each participant. The examination is directed primarily toward diagnosis of certain chronic conditions—heart disease, rheumatism and arthritis, and the detection of congenital malformations, and to a group of physical and physiologic measurements. The examinee is not given any findings, but he may request that the findings be sent to the physician of his choice.

The procedure includes a history; a physical examination for certain conditions in which standard diagnostic criteria exist and for which a single visit suffices; a dental examination; screening test for visual acuity and hearing loss; 12-lead electrocardiogram; blood determinations; 6-foot, 14″ by 17″ chest roentgenogram; roentgenograms of hands and feet; modified glucose tolerance test; microhematocrit determination; serologic test for syphilis; serum cholesterol level; serum bentonite flocculation test for rheumatoid arthritis; urinary sugar (and albumin content for males); body measurements such as height, weight, arm girth, and skinfolds; and anthropometric measurements which contribute, for purposes of safety and efficiency, to the design of motor vehicles, airplanes, and farm and industrial machinery.

The examining team consists of physicians who are senior residents or fellows in internal medicine recruited from medical teaching centers; and Public Health Service personnel, including dentists, nurses, technicians, and medical history interviewers.

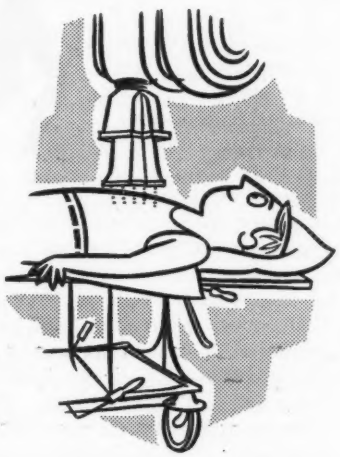
Dr. John D. Porterfield, Deputy Surgeon General of the United States Public Health Service, Washington, D. C., gave this paper before the Section on Public Health on April 11, 1960, during the Fort Worth annual session of the Texas Medical Association.

Why are these two different methods being applied in studying the health of the population of the United States? In general, the interview method gives breadth, and the examination method depth.

In general, there is a basic difference in the concept of morbidity associated with each method. In a household interview survey, the concept of illness is that of the person himself. He is ill if he considers himself ill, the evidence being that he reports illness and that he often takes such action as seeing a physician, staying home from work, and cutting down on his activities. In surveys based on examinations, the concept is different and requires the use of diagnostic tests, examination procedures, and medical history questions.

Obviously, the results from these two methods will differ widely for some health topics, including the prevalence of chronic diseases. A medical examination survey may detect numerous chronic conditions not reported in prior interviews with the examined persons, since they obviously will not report conditions they do not know they have. Moreover, they tend not to report conditions which have no social or economic impact upon their lives. In contrast, interviews may reveal conditions which are troublesome to the individual and interfere with his usual activities but which may be undetectable by diagnostic tests and physical examination.

In addition to data such as prevalence figures which differ between the two forms of measurement, there are statistics which can be obtained only inefficiently or not at all by one method but which can be collected well by the other. In short, the two concepts of morbidity overlap, but neither is wholly contained within the other. Each of the data collection methods has limitations and peculiar strengths.



To illustrate the kinds of data which the survey makes available, some statistics on heart disease and high blood pressure are taken from a recent National Health Survey publication, based on interviews representing the civilian non-institutional population for the year July, 1957-June, 1958. An estimated 10,117,000 persons were reported to have either a heart condition or high blood pressure. Approximately half of these people indicated that they had hypertension with no heart involvement; the other half reported both conditions or a heart condition alone. The overall prevalence rate for these diseases was 60.1 per 1,000 population.

About 98 per cent of the people reporting heart conditions or hypertension stated that they had been medically attended. Three-fourths reported medical attention during the past year. Three-fourths of those reporting heart conditions and two-thirds of those reporting hypertension said that they were currently under medical care. These percentages give an objective indication of the significance attributed to these conditions by the people interviewed.

Data on the disability resulting from these conditions are presented in several ways. Of the total number who reported heart conditions and hypertension, roughly 20 per cent stated that they had been confined to bed for at least 1 day during the preceding year because of these conditions. Of those cases involving major bed disability—at least 31 days in the year—patients with heart diseases outnumbered patients with hypertension but without heart involvement by about 5 to 1.

A further indication of the social and economic cost of these conditions to the nation is the number of days of disability they caused. Three different measures of disability are used in the report: restricted activity days—that is, days on which a person had to limit his usual activities; bed disability days; and work-loss days.

Heart conditions and hypertension caused an estimated total of 337 million days of restricted activity during the year studied. This is about 10 per cent of the total person-days of restricted activity reported for all conditions, acute and chronic. Persons reporting heart conditions averaged about 49 days of restricted activity per year, and those with hypertension about 19 days.

In the civilian non-institutional population of the United States heart conditions and hypertension caused about 119 million bed disability days during the year ending June, 1958. About 3 times as many bed disability days were associated with heart conditions (88 million) as with hypertension (32 million).

For the two conditions combined, approximately 35 per cent of the restricted-activity days were bed-disability days. In the heart condition group, bed-days accounted for 37 per cent and in the hypertension group, 32 per cent.

People whose usual activity is working lost approximately 26 million days from work because of heart disease and hypertension—16.5 million because of heart conditions, and 9.5 million because of high blood pressure. It must be remembered, however, that in this survey only people who are actively engaged in a job, business, or profession can properly report days lost from work and that many persons with heart disease or hypertension have left the "usually working" population as a result of poor health.

This report shows the conditions, the disability, and the medical care by age and sex—information never before available for the whole population. The size of the sample and the survey method are such that in later reports these same topics will be related

to such demographic characteristics as income, education, race, and region of the country—although the sample design does not permit breakdowns by states.

The Survey and Heart Disease Statistics

To arrive at a diagnosis of hypertension and of heart disease, a detailed history is obtained, a physical examination of the heart is made, repeated blood pressure determinations are recorded, and a 6 foot 14″ by 17″ chest roentgenogram and a 12-lead electrocardiogram are made. All of these procedures are performed under standardized conditions and are interpreted by objective analysis. The data will yield prevalence of the conditions in medical terms—the first such national baseline for these diseases to be derived not from death statistics, but from the living population. Furthermore, since height, weight, and body fat measurements will be available for the sample individuals, the interrelationships of these findings with hypertension and heart disease can be delineated.

A report on arthritis and rheumatism is currently in preparation, based on a similar interview survey. The Health Examination Survey also stresses these diseases, and much new information will be available when these results are tabulated.

As a result of the appearance of these statistics, it is hoped that more physicians will begin to compile figures on the characteristics of their own caseloads. What are the findings in routine examinations? With what types of complaints do patients report? How many of them have been previously treated? The comparison of such figures with the statistics from the representative samples of the general population just described should be extremely interesting. The comparison may help to explain a perplexing problem which troubles many thoughtful physicians: how patients can be taught to recognize the real danger signals and to report for early treatment.

The people who come into a physician's office do so either because they are sufficiently health-minded to want the physician to keep them in good health or because they have a condition worrisome enough to make them want to put themselves under a physician's care. In either case they represent a self-selected group of people.

But what about those who do not come in? They may consider themselves to be in good health, they may not want to run the risk of having anyone tell them otherwise, or their complaints may not have worried them sufficiently to overcome natural human inertia.

Health Survey statistics, particularly when compared with figures compiled from private practices, can indicate something about the people who do not report to the doctor's office for treatment. The Health Examination will show what happens when a representative sample is examined, and the Health Interview will give the picture for a representative sample of complaints, in the patient's own terms. More will be known about their age; sex; marital status; education; and whether they are working, keeping house, going to school, retired, and so forth. In sum, these figures will provide a description of the population from which this self-selected patient load is drawn.

Many physicians may think that their world-loads are sufficient, without worrying about the potential patients who, for one reason or another, do not get to their offices. This is true. The burden on the medical profession implied by these disability figures is overwhelming, and there is every likelihood that it will get heavier before it gets lighter. To my mind, the only workable solution is to discover ways of concentrating the physician's aim on those who can be helped most with the least expenditure of professional time and effort—on those, in short, whose potential disabilities are still in the preliminary stages.

There has been a tendency in the past, not only in the medical profession but throughout society, to accept disabilities as an inescapable burden. Consequently, major efforts in this field have been directed toward alleviating existing handicaps. There is abundant evidence to support the conviction, however, that active application of preventive principles can greatly reduce the number of disabled older persons—and therefore, in the long run, reduce the strain on the physician.

I suggest that the key to the most effective use of medical resources lies in prevention of disability.

At the 1958 sessions of the Texas Academy of General Practice in San Antonio, I was talking with two doctors who were discussing the recent death by coronary occlusion of one of their colleagues in his middle forties. One of them remarked that since he had attained 50 years, he had passed the point of greatest risk in these sudden and overwhelming attacks.

Obviously, physicians are in no position as yet to talk except in general terms about prevention of such attacks which affect persons in the best of health. Nevertheless, the courses of many diseases permit early detection and relatively simple therapy. Some-

how physicians must create the means and the time to see patients with these developing diseases. Glaucoma, diabetes, various kinds of cancer in situ, are among the conditions amenable to this approach.

Screening Tests

One method described by many names—not all complimentary—but which can be extremely effective is multiple screening. In many places it has been applied successfully without being interpreted as an invasion of private practice. In one instance, however, an unhappy situation developed in a northern state when a County Health Department conducted a program intended to screen persons with high blood sugar levels and refer them to their own physicians. A number of patients so referred were told by their doctors that they would not be treated because they had been sent by the clinic. The rigid attitude of these physicians can be deplored, but the real trouble lay in failure of the health officer to discuss the program with the local medical society before it was launched.

If a county medical society undertakes a multiple screening program, with referral to private physicians for those with suspicious conditions, there is every reason to expect a successful outcome. In this situation the medical group can be assured that the patients screened understand the process—that it is not to be construed as a complete physical examination and that passing it is by no means a guarantee of good health. With this understanding on the part of both patients and physicians, multiple screening can produce results beneficial not only to the patients whose potential disabilities are detected at the outset but also to the physicians whose work loads are ultimately concentrated on those who need their services most.

The new information about the nature and extent of chronic disability which are being acquired from the National Health Survey and those which physicians acquire every day in their practice may appear discouraging, especially when the future seems certain to bring more of the same. There may be comfort in the thought that physicians have brought this increased load upon themselves by enabling more people to live longer. At least they may find consolation in the assurance that that they are not working themselves out of a job. The future of medicine may not be completely clear, but it is certainly busy.

Speakers, when talking about the future, often refer to the "handwriting on the wall." It is less often remembered that the original Biblical quotation added: "Thou art weighed in the balances, and art found wanting." I am confident that this inscription will not be applied to the medical profession. Physicians can rise to the new challenge which has issued from their past successes.

♦ Dr. Porterfield, U. S. Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C.

Climate Affects Heart

The weather has a lot to do with how the heart works. Consequently, heart disease patients may be candidates for "climatotherapy," say two New York researchers in the December issue of *GP*, publication of the American Academy of General Practice.

Climatotherapy is treatment by changing the weather environment in which the patient lives to lessen the potentially harmful effects of his native climate.

The authors are Dr. Louis A. Kapp, White Plains, and James K. McGuire, Ph.D., New York City. They describe the effects of cold and hot weather, humidity, sudden and extreme temperature changes and windiness on the circulatory system, and give tips on where doctors may send heart patients for greatest climatotherapeutic benefit.

The two men cite medical evidence that serious circulatory disorders, such as coronary occlusion and congestive heart failure, are more likely to occur in winter; that arteriosclerosis is more common in temperate regions than in warm countries; and that extreme variations in weather may produce congestive heart failure, coronary insufficiency, and cardiac arrhythmias.

The Management of Chronic Pulmonary Dysfunction

ROBERT J. CARABASI, M.D.
TEMPLE, TEXAS

In chronic pulmonary dysfunction, as in diabetes, the patient must have an understanding of therapeutic measures and must realize the need for their daily application. Although at first the necessary routine may sound burdensome, he can be made to see, with practice and guidance, that the therapeutic regimen interferes only minimally with everyday activities.

INFORMATION about therapeutic management in chronic pulmonary dysfunction has been disseminated widely. Alert physicians now have every right to be optimistic about treating many patients who previously would have been doomed to early death or chronic invalidism because of impaired pulmonary function; however, this outlook apparently is not shared by the entire medical profession. Application of the principles involved and utilization of readily available techniques and medications which have proved beneficial frequently are lacking.

In this article the term "chronic pulmonary dysfunction" refers to disturbances that interfere with the ability of the lungs to ventilate, that is, to move air in or out through the tracheobronchial tree. Primarily, this is an obstructive defect in ventilation and the outstanding example is pulmonary emphysema. "Chronic bronchitis," a British designation, also fits into this category. Because ventilatory dysfunction is prevalent and satisfying results are possible when the patient is managed correctly, this condition will be discussed exclusively.

Program of Management

The following is a program of management used at the Scott and White Clinic and Scott and White Memorial Hospital. Basically, it consists of three parts: (1) therapeutic measures; (2) education and training of the patient; (3) daily application of therapy and training, to be continued indefinitely.

1. *Therapeutic measures.* The major therapeutic endeavors are directed toward alleviation of bronchial secretions, bronchial infection, and bronchospasm. The following measures are utilized:

a. *Cessation of smoking.* Smoking produces bronchial irritation, and thus increases bronchial secretions and bronchospasm. Some authors think that smoking is *the cause* of pulmonary emphysema.[4, 7] It has been shown in patients with emphysema that mechanical resistance increases and breathing becomes more difficult after smoking even one or two cigarettes.[2] I unequivocally demand complete cessation of smoking.

b. *Rotary postural drainage.* Gravity is utilized to help the tracheobronchial tree rid itself of secretions. The patient's feet are elevated 8 to 10 inches above his head (Fig. 1), and he spends 5 to 8 minutes on each of the four sides of the thorax. Because the branches of the tracheobronchial tree extend in every direction, this method of rotation is believed to be most efficient. The procedure should be done at least twice a day—in the morning on arising and at night before retiring. Generally, rotary postural drainage is recommended after nebulization therapy,

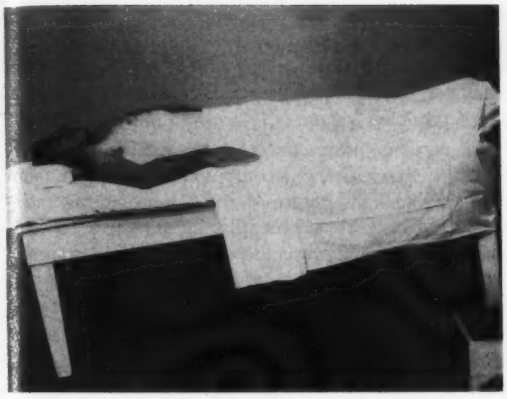


Fig. 1. Patient in position for rotary postural drainage. Note pillow under the head only.

since it is thought that secretions are moved more easily if they are first moistened and bronchospasm is overcome.

c. *Nebulized bronchodilators.* These bronchodilators, with or without detergents, are administered by one of three methods. Intermittent positive pressure devices produce a nebulized aerosol of bronchodilator-detergent mixture which is propelled by oxygen or compressed air and delivered with a pressure of 12 to 15 cm. of water during the inspiratory phase. A compressor Y-tube arrangement (Fig. 2) using the same medications is used frequently. After the patient has been treated by one method or the other, he is treated with a hand nebulizer (Fig. 3) and is instructed in its use. Treatments with any of these three methods of nebulization usually are given 4 or 5 times daily on a regular schedule. Those in the morning and evening are taken before rotary postural drainage, and remaining treatments at evenly spaced intervals between the morning and evening therapy. For acute and severe states of dyspnea resulting from cough, overexertion, respiratory infection, and other causes, additional treatments utilizing smaller amounts of medication are given.

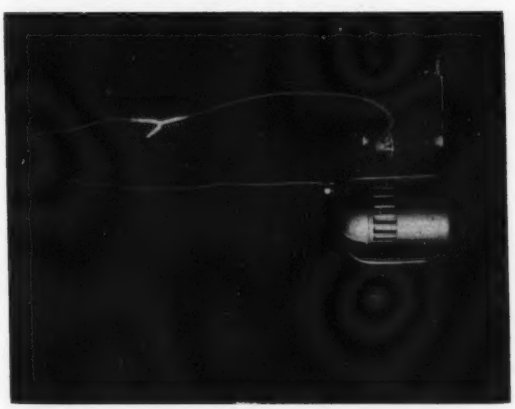


Fig. 2. Small compressor motor with glass Y-tube and nebulizer attached.

d. *Oral bronchodilators.* Aminophyllin or choline theophyllinate (Choledyl), 200 mg., is administered 20 to 30 minutes before meals and at bedtime. Choline theophyllinate is much less likely to produce gastric irritation because it is much more soluble and readily absorbed.[3] Prolonged use does not diminish therapeutic effectiveness.[5, 6]

e. *Antibiotics.* According to Spain,[8] the basic lesion in emphysema is a chronic, nondestructive, low grade inflammatory process, with chronic bronchiolitis and peribronchiolitis. Low grade chronic infection probably is present in these patients, although the clinical signs of infection such as fever, elevated erythrocyte sedimentation rate, elevated white blood cell count, and/or polymorphonuclear leukocytosis may not be apparent. Most of my patients receive antibiotic therapy for a few days.

f. *Miscellaneous measures.* Important miscellaneous measures frequently include the use of iodides, abdominal belts or supports, breathing exercises, corticosteroid therapy, and cardiac therapy. Iodides usually are given as a saturated solution of potassium iodide, 10 drops 3 times daily for 7 to 10 days. After withdrawal for several days, iodide therapy may be repeated in the same sequence. Rarely is the medication continued indefinitely.

Abdominal belts are often helpful. In one series of patients, about 25 per cent were helped by abdominal pressure.[1] Breathing exercises have been used successfully and should be considered. Cardiac therapy, including digitalization, diuretics, and other medications, frequently is necessary in severe pulmonary decompensation. Usually, when cardiopulmonary failure is present, vigorous therapy directed toward the pulmonary aspects is required before the usual measures of managing heart failure are successful.

At times corticosteroid therapy is beneficial, but other measures should be tried first. Results frequently are impressive; however, corticosteroids are not prescribed routinely for long periods. The tuberculin skin test should be applied to patients receiving corticosteroid therapy. If it is positive, the patient is given isoniazid, 100 mg., 3 times a day for as long as he receives the corticosteroid. When the tuberculin reaction is negative and corticosteroid therapy is continued longer than 3 months, the test is repeated. Roentgenograms are made at frequent intervals.

g. *Care of respiratory infections.* In respiratory infection, bronchial secretions and bronchospasm are increased, requiring greater efforts in therapy. For mild or moderate infections, patients receive oral, broad spectrum antibiotic therapy in normal thera-

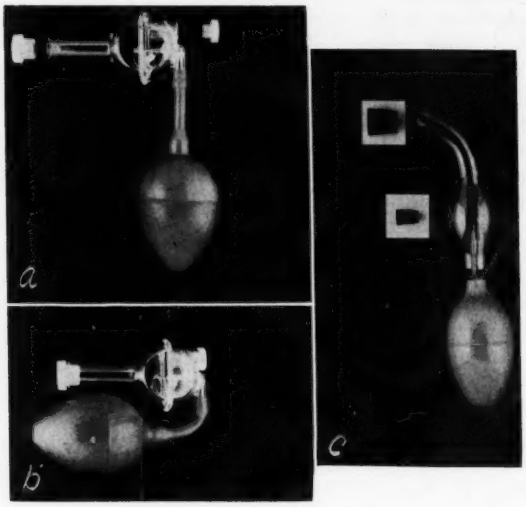


Fig. 3. Hand nebulizers. **a.** and **b.** Vaponefrin nebulizer. **c.** De Vilbiss No. 40 nebulizer.

peutic doses for approximately 5 to 6 days. Rotary postural drainage is increased to 3 or 4 times daily, and use of the nebulizer is increased, the patient taking about one-half of a treatment between those of the regularly prescribed regimen. The procedure is repeated as often as needed to overcome dyspnea and wheezing during the day or night. Severe infections often require hospitalization.

2. *Education and training of the patient.* In my opinion, the situation in chronic pulmonary dysfunction is somewhat similar to that in diabetes. Understanding the therapeutic measures and realizing the necessity of their continued daily application is essential to the patient's well-being. He learns the nature of his disease and what he can and must do to maintain the lung function. The concept that these therapeutic measures serve as a "crutch" is emphasized.

Except for patients with the mildest forms of chronic pulmonary dysfunction, patients are hospitalized. Because the program of management concerns lifelong application of therapeutic endeavors, it is of utmost importance that the patient know *exactly* what he is to do and that the physician know *exactly* what the patient is doing. This instruction can best and, perhaps, only be given in the hospital, where the patient is exposed to concentrated and repeated instructions which come primarily from the physician.

If the patient is not completely overwhelmed by disturbed pulmonary function, he is hospitalized for about 2 to 4 days. Because some patients become oriented faster than others, the time in the hospital will vary, but this seldom requires more than 4 or 5 days. Many patients with severe loss of pulmonary function require vigorous treatment before they are ready for instruction. These patients, of course, must be hospitalized longer.

All patients, hospitalized or not, receive a copy of a printed "manual," which supplements the program. In the manual the nature of the patient's problem is discussed, the general principles are enumerated, and many of the techniques and procedures are described.

The patient with chronic pulmonary dysfunction requires periodic observation. This especially is true after hospitalization. In my patients with chronic pulmonary dysfunction, follow-up observation is requested in from 1 to 3 months, depending upon the severity of disease. Occasionally, minor misunderstandings occur and it is necessary to ascertain that the patient understands and practices the "do's" and "don'ts." At time of initial follow-up examination, the whole program is reviewed in detail. This visit thus serves as a "refresher course," and usually is all that is necessary to complete the patient's education and training. After the initial follow-up examination, I recommend that these patients be re-evaluated periodically every 6 to 12 months, depending upon the individual case.

Dr. Robert J. Carabasi of Temple is a specialist in medical diseases of the chest at Scott and White Clinic. He presented this paper before the Section on Internal Medicine of Texas Medical Association on April 11, 1960, in Fort Worth.

3. *Daily application of therapy and training.* The third aspect of the program is to develop the patient's understanding of the necessity for continued, daily application of the therapeutic measures. At first this sounds burdensome to him, but with practice and guidance he realizes that the therapeutic regimen is designed to interfere only minimally with everyday activities. He reasons quickly, too, that the use of the "pulmonary crutch" is habit-forming and thus becomes part of his daily routine.

Summary

The management of chronic pulmonary dysfunction requires an organized program based upon (1) major therapeutic measures, (2) education and training of the patient, and (3) daily application of

therapeutic measures and patient responsibility, continued indefinitely.

Major therapeutic endeavors include cessation of smoking, rotary postural drainage, administration of nebulized and oral bronchodilators, antibiotic therapy, proper care of respiratory infections, and, in some instances, the use of iodides, abdominal belts, breathing exercises, and corticosteroid therapy. Patient education and training is emphasized by the physician, and is supplemented by a printed manual. These efforts are best initiated in the hospital during a period of several days. Follow-up examination is essential. The daily application of therapeutic measures and patient education, continued indefinitely, is stressed.

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Dr. Carabasi, Scott and White Clinic, Temple.

ABSTRACT OF DISCUSSION

DR. JOHN A. WIGGINS, JR., Fort Worth: It is interesting that Dr. Carabasi used the term "pulmonary dysfunction" rather than "pulmonary emphysema." When a patient reports with the problem he has discussed, most physicians would make the diagnosis of pulmonary emphysema. Actually, if careful pathologic studies are made of all such patients at post mortem examination, there is considerable variation in the amount of anatomic emphysema demonstrable. On some occasions, it may be only mild or localized.

I mention this because I wonder how accurate is the clinical diagnosis pulmonary emphysema. Not only may a diagnosis of this type be inaccurate, but certain connotations are associated with the term emphysema. Few patients ever heard of the word. Many physicians visualize this disease as one of over-expansion of the lungs and loss of elasticity. They believe that these changes are irreversible and therefore that nothing can be done to help the patient. However, a term such as chronic bronchitis with obstructive lung disease immediately suggests infection, inflammation, bronchospasm, and unusual amounts of secretion—all of which are reversible phenomena and all of which are seen in varying degrees in patients with the diagnosis of pulmonary emphysema. I am not sure what the best terminology or classification might be for this syndrome, but I certainly think that the diagnosis of pulmonary emphysema alone leaves something to be desired.

Dr. Carabasi covered briefly the fundamentals in the management of emphysema. One aspect of management he mentioned bears further emphasis. This is the problem of obtaining the patient's cooperation. In this disease active participation on the part of the patient is required. Often these patients are sick, discouraged, and depressed. They have been told that nothing can be done for them, and generally they are still smoking. For this reason the physician needs to be encouraging and optimistic, and he needs to show a genuine interest in the patient's problem. In other words, a selling job has to be done to motivate these patients enough to stop smoking and to make them see the necessity for their active participation in treatment.

Secretary of Health, Education and Welfare

The new Secretary of Health, Education and Welfare, Gov. Abraham Ribicoff of Connecticut, named by President John Kennedy, said his philosophy on policies of HEW "is on all fours with Senator Kennedy's."

The President has indicated that "some of the most challenging and significant activities and programs of the years to come" will occur under the direction of the department to be headed by Gov. Ribicoff.

The author reports a case of sarcoidosis of the nervous system, an infrequently reported illness. Steroid therapy is the accepted regimen of therapy. The patient in this case improved with such treatment.

Sarcoidosis of the Nervous System

WILBERT E. SCOTT, M.D., AMARILLO, TEXAS

THE ETIOLOGY of Boeck's sarcoid remains a medical enigma. Sarcoidosis is generally considered to be a peculiar tissue reactivity to an inciting factor. The tubercle bacillus, pollens of the pine family of coniferous trees and shrubs, and fungi are among the suspected pathogens. The disease is protean, with variation in geographic occurrence, sites of tissue involvement, severity of symptoms, objective findings, and clinical course.

Evidences of sarcoidosis of the nervous system are also variable. Ocular lesions such as iridocyclitis, conjunctivitis, keratoconjunctivitis or conjunctival follicles may be clues for diagnosis of an otherwise puzzling systemic disease, or, with only minimal pulmonary findings on the roentgenogram, scalene node biopsy may establish a histologic diagnosis.

The natural course of the disease is one of progressive healing by fibrosis, often with serious consequences in the eye or the central nervous system. Vigorous corticosteroid therapy may prevent permanent tissue destruction.

The purposes of this paper are to present a case of sarcoidosis of the nervous system and to discuss the illness.

Case Report

A 60 year old white woman, first seen on June 11, 1958, had been in good health until about eight weeks previously, when she had noted listlessness, malaise and poor appetite. Five weeks later she had generalized aching, chilliness, and night sweats. She had lost from a normal weight of 125 pounds to 115 pounds. An otolaryngologist had attributed pain in the left ear and side of the face to temporomandibular arthritis. There had been no facial swelling. The patient had noted slight shortness of breath on moderate exertion and a feeling of tightness in the chest, together with a mild, hacking, nonproductive cough. Her husband reported that her respiration was labored during sleep. There were occasional dull headaches, and momentary loss of equilibrium on sudden change of posi-

Dr. Wilbert E. Scott, an internist, practices in Amarillo, Texas. He is affiliated with the Department of Medicine of Northwest Texas Hospital of that city.

tion. Hearing and vision were normal except for a refractive error. There were no complaints of sinus infection, hay fever, nosebleeds, or sore throats. The patient noted tension and soreness of the posterior neck muscles during periods of nervous stress. Except for anorexia and diarrhea after ingestion of milk, there were no gastrointestinal tract symptoms. The patient had had nocturia one to three times, and an occasional sense of urgency. There had been an intermittent papulopustular eruption of a few lesions at a time over the right hip.

Past history included a tonsillectomy, appendectomy, and oophorectomy, followed two years later by total hysterectomy. The patient had received injection therapy for varicosities of the leg and vulva.

The family history was irrelevant. Social history was that of a housewife with no exposure to unusual chemicals or dusts. The patient had always lived on the high plains of Texas, and not in or near any pine forests. There had been no exposure to tuberculosis or any chronic febrile disease.

On examination the patient appeared sallow, wasted, and chronically ill. There were six red papules, averaging about 5 mm. in diameter, over the right hip; these disappeared in a few days. The eyes showed no external or internal abnormalities. The left temporomandibular joint grated on motion and was tender. Several molars had been extracted. The tongue was coated. There was slight epigastric tenderness. The uterus and adnexa had been removed. Bilateral, grade 2 varicosities of the lower limbs were present. Complete regional physical examination was otherwise negative.

Laboratory studies. Results of the following tests were within normal limits: catheterized urinalysis and urine culture, complete blood count, blood culture, febrile agglutinations, C-reactive protein, cold agglutinins, thymol turbidity, cephalin flocculation, van den Bergh, blood urea nitrogen level, sternal marrow biopsy, L. E. cell examination, electrocardiogram, and skin tests coccidioidin, histoplasmin, repeated tuberculins through second strength PPD. Serum calcium was 9.4 mg.; phosphorus, 3.8 mg.; total serum protein, 5.29 Gm.; albumin, 3.62 Gm.; and globulin, 1.67 Gm. per 100 cc. Sedimentation rate (Westergren) was 16 mm. in one hour.

Chest roentgenograms and fluoroscopic examination in June, 1958, showed fibrous interstitial stranding of the bases, left hilar adenopathy and calcification with glands 3 cm. in diameter, and calcium deposition in the aortic knob. By June 30 the interstitial stranding had resolved, suggesting that inflammation had subsided. Fibrosis and calcification of the left hilum remained unchanged. A cholecystogram, upper gastrointestinal roentgenographic series, barium enema roentgenograms, and intravenous pyelograms were all normal.

Course. During hospitalization the patient's fever ranged from 99.6 to 101.8 F. On the seventh hospital day a cough developed and interstitial stranding was reported in the chest roentgenogram. With tetracycline therapy the cough subsided in 5 days. During this interval the patient began to complain of a dull, constant, nonradiating epigastric pain which was not affected by meals. Anorexia was ingravescent. Nausea without vomiting ensued. During the next several weeks the pain continued. Weight decreased to 98 pounds. The patient became apathetic and negativistic, and resisted any further diagnostic studies, scalene biopsy, or exploratory laparotomy. She returned home, where the course of illness remained the same, with daily fever and gradual deterioration of her general condition. Several consultants agreed that the most probable diagnosis was Hodgkin's disease.

Two weeks later a typical catatonic reaction occurred, with complete loss of contact, no reaction to painful stimuli, and spontaneous assumption of the fetal position. The patient was given promazine hydrochloride. Within 12 hours she responded. A few days later she began to complain of constant, dull, generalized headaches, and disturbance of vision. By this time she was unable to walk alone because of weakness.

The patient was hospitalized July 29. A neurosurgeon found bilateral papilledema, focal hemorrhages of the retinae, and haziness of the vitreous. Except for apathy and negativism, there were no abnormal neurologic findings. Spinal puncture with the patient in the left lateral supine position yielded clear fluid with a pressure of 150 mm., total protein content of 64 mg. per 100 cc., and normal cell count, colloidal gold curve, and Kolmer's test. An ophthalmologist concurred in the diagnosis of uveoretinitis,

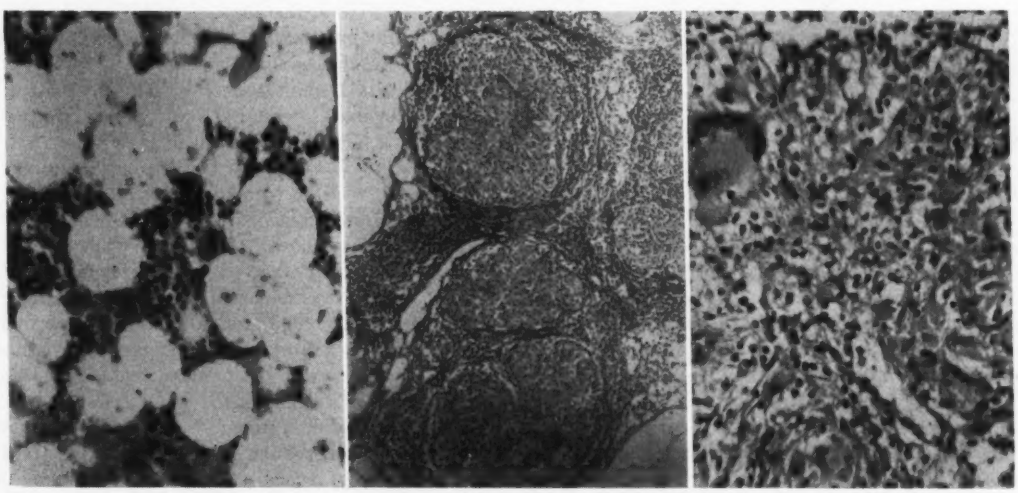

Fig. 1. Photomicrographs of tissue obtained at biopsy in present case. Left: bone marrow. Center and right: scalene node.

and suggested sarcoidosis as the cause. The patient steadfastly refused further biopsy procedures. In an attempt to prevent blindness from progression of suspected sarcoidosis, administration of triamcinolone, 32 mg. per day, was started. The results were dramatic in that within 48 hours she became afebrile, showed remarkable improvement in attitude, and began to eat normally for the first time in weeks. In 96 hours the ocular lesions had improved. The remission continued and the patient was dismissed August 16. The triamcinolone was reduced cautiously to 12 mg. per day. Subjective improvement continued until about October 1, 1958, when fever of 100 F. recurred, with further blurring of vision. Ophthalmologic reexamination showed no change in the uveal tract lesions, but a ground-glass appearance of the corneas, attributed to endothelial dysplasia, had developed. During this interval anemia had occurred (hemoglobin, 9.0 Gm.; red blood cell count, 2,850,000 per cubic millimeter).

On re-admission to the hospital the chest roentgenogram showed no change from the one made the previous June 30. Serum calcium and phosphorus levels were normal, as was a repeated gastrointestinal roentgenographic series. Biopsy of the left scalene nodes showed foci of granulomatous inflammatory changes with epithelial cell proliferation. Multinucleated giant cells were present in these small glands. Special stains revealed no acid-fast bacilli. The findings were compatible with the diagnosis of sarcoidosis.

The patient went home, and the steroid regimen was continued. The dose of triamcinolone was diminished stepwise by 2 mg. every five days until a maintenance dose of 12 mg. per day was reached. By November 12, 1958, there was evidence of hypercorticism, with moon-shaped facies. The chest roentgenogram showed no change. Decamethasone was substituted for the triamcinolone. In two weeks the facial changes had receded to normal. The patient's weight steadily increased and her vision improved. By February, 1959, she was driving her own car and had regained her normal strength.

On August 17, 1960, the patient had no complaints and stated that she was fully active. Decamethasone therapy had been discontinued in May, 1959. Physical examination was nonconclusive. Complete blood count, urinalysis, and sedimentation rate were normal. In the chest roentgenogram the left hilar node was 1.0 cm. less in diameter and the increased density of the reticular markings in the lungs the same as in the film made in May, 1959.

Discussion

The nervous system is involved in from 1 to 5 per cent of cases of Boeck's sarcoidosis.[5, 6] More spinal fluid surveys in patients free of nervous system findings would yield a higher incidence, especially of those with slight pleocytosis and/or mildly elevated spinal fluid protein level. Diagnosis is facilitated by concomitant disease of other organs: salivary glands, lymph glands, lymph nodes, small bones, joints, skin, liver, spleen, or lung. Difficulty ensues when neurologic symptoms occur without such manifestations. The appearance of central nervous system and ocular symptoms, however, can indicate a poorly delineated but severe systemic disease, as in this case.

The epidemiology of sarcoidosis has been the subject of recent investigation. The incidence has been reported to be higher in regions covered with red yellow podzolic soil, especially in forested areas. Boeck's sarcoidosis has been diagnosed five times in 109,685 admissions to Northwest Texas Hospital since 1949. Five cases, none involving the eye or nervous system, have been reported among 112,723 admissions since 1939 to Saint Anthony's Hospital, Amarillo. Professor A. M. Johnson[9] reports that the soil in this area contains insignificant traces of beryllium. The nearest pine forests are more than 200 miles away.

Pennell[11, 12] stresses the variety of symptoms referable to the nervous system. Headaches, visual complaints, confusional states, convulsions, and various motor and sensory deficits are often present. The patient reported had noted listlessness, malaise, anorexia, chills, night sweats, facial pain, dull headaches, a catatonic episode, and brief episodes of imbalance on sudden changes of position. Höök[6] mentions variable mental symptoms such as the psychasthenic syndrome, character changes, lethargy, psychotic features with persecution ideas, and confusional states. He classes as "cerebral" symptoms of nervous system sarcoidosis those resembling manifestations of a brain tumor, hypophyseal lesions, or hypothalamic disease. In contrast, in some cases of severe nervous system involvement, the patient had been symptom-free in life.

Positive findings on neurologic examination vary with sites of involvement. Meningeal infiltration may be subacute, as manifested by convulsions, headache, nuchal rigidity, fever, and abnormal spinal fluid findings. Chronic meningeal sarcoidosis may cause hydrocephaly.

Pituitary and hypothalamic[11] lesions are frequent.[3, 4, 11, 12] The resultant clinical picture may be diabetes insipidus, the adiposogenital syndrome, suspected pituitary adenoma, infantilism, sleep disturbances, or panhypopituitarism.

The seventh cranial nerve is the one most frequently involved,[8] with the optic nerve (discussed under optic lesions) next in incidence.[3] There is frequently a peripheral type of facial paralysis, unilateral or bilateral, with or without associated parotitis.

The literature shows that any cranial nerve may be diseased in sarcoidosis, as manifested by anosmia, ocular palsies, fifth nerve sensory impairment or loss, nerve deafness, vestibular branch disturbances, dysphagia with nasal regurgitation, vocal cord paralysis, and spinal accessory nerve involvement. Weakness of tongue protrusion may be unilateral, and accompanied by atrophy and fibrillation.

Optic lesions[1, 10] common with central nervous system sarcoidosis are iritis and iridocyclitis. Uveitis, choroidoretinitis, retinal perivasculitis, conjunctivitis, keratoconjunctivitis, conjunctival follicles, and periphlebitis have been described.[6] There also have been

reports of choroidal atrophy, retrobulbar neuritis and, less frequently, pupillary anomalies such as the Argyll Robertson pupil or Adie's syndrome. Cataracts or glaucoma may be sequelae.

Direct cerebral infiltration may result in epilepsy, unilateral sensory defects, an extrapyramidal syndrome with generalized choreiform movements, a cerebellar syndrome, signs of midbrain involvement, or even symptoms indicative of brain tumor.[5]

Sarcoidosis of the spinal cord has given findings of temporary neck-to-waist anesthesia,[3] sacral cord disease, and Horner's syndrome.[8]

Peripheral nerve sarcoidosis has been found with median, radial, and ulnar neuritis,[3] or intercostal neuritis. Peripheral nerve lesions of sarcoidosis tend to be evanescent, whereas those of the central neuraxis (cranial or spinal) are usually static or slowly progressive.[8]

In Boeck's sarcoidosis of the nervous system, spinal fluid study is the most important laboratory test. According to Pennell,[11] about 50 per cent of such cases will have positive changes, most commonly, a moderate pleocytosis (chiefly lymphocytes) with, occasionally, a few polymorphonuclear leukocytes. A moderate increase in protein with the pleocytosis is less often seen. In this case there was a slightly elevated protein level and no pleocytosis. Rarely is there significant lowering of spinal fluid sugar content.

Colover,[3] from his review of the literature, found the highest cell count to be 162 per cubic millimeter, and the most elevated protein level, 720 mg. per 100 cc. (xanthochromia in this case report). The pressure of the cerebrospinal fluid may be raised.

Electroencephalographic studies may be helpful. Routine skull roentgenograms, carotid arteriograms, and pneumoencephalograms may demonstrate space-occupying lesions.[3, 6]

The Nickerson-Kveim test is not as reliable as tissue biopsy.[14] Pathologic appearance of infiltrated nervous system tissue is typically that of benign lymphogranulomatosis.

The following is a partial list of conditions to be considered in differential diagnosis: tuberculosis, syphilis, periarteritis nodosa, disseminated lupus erythematosus, infectious mononucleosis, histoplasmosis, toxoplasmosis, undulant fever, Behcet's syndrome, Hodgkin's disease. Since any part of the nervous system may be involved by Boeck's sarcoidosis and because eye findings are common, the entire spectrum of inflammatory diseases of the eye and diseases of the nervous system must be considered.

In untreated cases of sarcoidosis of the nervous system the clinical course is prolonged and "sluggish" for several months to several years. Progress of disease alternates with remissions. Although sarcoidosis elsewhere in the body has usually good prognosis, the outlook is comparatively poor with nervous system involvement.

As in this case, when the severity of the illness indicated the need for steroid treatment, it is the accepted regimen of therapy.[5, 7] Neurosurgery may be indicated for space-occupying lesions or for hydrocephalus.[4]

Summary

Sarcoidosis of the nervous system is an infrequent illness. The clinical manifestations are highly variable, because the disease can involve any part of the central or peripheral nervous system. Some of the pertinent literature is reviewed. A case is presented.

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Two cases of unsuccessful suicidal attempts with Librium are described. A depressed patient ingested 875 mg. of compound in one dose, with no ill effects except ataxia and dysarthria. The other patient, a schizophrenic, ingested 1,630 mg. within a 24 hour period, with no ill effects except drowsiness and ataxia.

Two Unsuccessful Suicidal Attempts With a New Drug:

Methaminodiazepoxide (Librium)

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METHAMINODIAZEPOXIDE (Librium) is an entirely new compound possessing many pharmacologic effects which make it a useful drug both in psychiatric patients and for those with a variety of nonpsychiatric indications. Since it will undoubtedly be prescribed widely by psychiatrists whose patients are potential suicidal risks and because accidental overdosage is always a possibility in other instances, the clinical courses of 2 cases of overdosage are presented.

The drug, synthesized in 1959 by Sternbach and Reeder of the Nutley Laboratories of Hoffmann-La Roche, is 7-chloro-2-methylamino-5-phenyl-3H-1, 4 benzodiazepine 4-oxide hydrochloride.

As can be seen from the structural formula, methaminodiazepoxide is chemically unrelated to any known psychopharmacologic agent. Animal studies[5] have demonstrated the following properties of this compound:

(1) sedative and muscle-relaxant action with only weak hypnotic effect; (2) unique taming effect on vicious and agitated animals (to the extent of making a Bengal tiger purr and enjoy stroking as does a kitten); (3) moderate to marked appetite-stimulating action in dogs and rats; (4) anticonvulsant activity in mice (against electrically and chemically induced seizures); (5) mild anti-inflammatory and analgesic effects in rats; and (6) absence of toxic effects following chronic administration to rats and dogs, and of untoward effects on reproduction in rats through several generations.

Extensive human experience with Librium on an investigational level revealed remarkable lack of side effects. The only reactions which have occurred with any degree of regularity are drowsiness and ataxia. The drowsiness frequently subsides after a day or two at the same dosage level (except in elderly patients) and always disappears on slight lowering of dosage. Ataxia is a clear sign of excessive drug administration.

The list of neuropsychiatric conditions in which patients have responded favorably to administration

of this compound comprises a great variety of indications. Tobin[8] first described the potent "anti-anxiety" effect of this drug. This observation has been repeatedly confirmed by investigators throughout the United States. The best results have occurred in anxiety and tension states, obsessive-compulsive reactions, and pseudoneurotic schizophrenia.

Dr. T. Paschal Clarke, clinical assistant professor at Baylor University College of Medicine at Houston, prepared this paper for the Texas Air-Medics Association, April 10, 1960, in Fort Worth.

Reports by other investigators[1-4, 6, 7] cover these and other indications.

To our knowledge, only one suicidal attempt has been reported[4] in which the patient ingested 625 mg. of Librium; however, this patient had a gastric lavage. In the 2 cases presented here, the patients ingested excessive quantities of this compound, but no lavage was done.

Case Reports

CASE 1.—A 44 year old white female underwent bilateral radical mastectomy 3 years before examination. Subsequent to the development of metastatic carcinomatosis to the dorsal spine, she became an alcoholic and developed habituation to hypnotics. The patient was placed on 25 mg. of Librium three times a day because of a reactive depression and was instructed to discontinue other sedatives and alcohol. Within 3 weeks she declared that she had no further taste for alcohol, but volunteered that she was taking 400 mg. of meprobamate 3 to 4 times daily, in addition to Librium. The latter drug was then reduced to 25 mg. at bedtime. Five days later, the patient developed intractable headache and decided that suicide was the only answer. She took 35 capsules of Librium, 25 mg. each, a total of 875 mg.

Her reactions are best described in her own words: "I didn't go to sleep and I was aware of no ill effect; in fact, my husband was at home and never knew that I had made such an attempt. At bedtime, he gave me some sedative prescribed by another doctor when I told him that I had no Librium. I noticed no ill effect except on arising the next morning, I couldn't walk straight, nor could I talk without a bad slur." All ataxia and dysarthria abated within a period of 48 hours.

CASE 2.—A white, 22 year old male, while acutely upset had attempted suicide, following which he was eventually confined at Central Louisiana State Hospital. On admission he was evasive and guarded and was diagnosed as schizophrenic. Although the patient made rapid hospital adjustment on Thorazine, he complained of nervousness and depression.

Librium therapy was started at 10 mg. three times a day. When at the end of 10 days, he continued nervous and tense, the Librium dose was increased to 45 mg. daily. During the following week, dosage was varied depending on the patient's drowsiness. Under this regimen, he felt better and Librium therapy was continued for approximately 2 months longer. At the end of that time, the patient attempted suicide by ingesting 1,495 mg. of Librium at one time. In addition to this single excessive dose, he took 135 mg. within the same 24 hour period, for a total of 1,630 mg.

This is the patient's account of his reaction: "I was in complete control of my thoughts and actions. I felt a little weak, but I decided not to lie down. I played cards and watched T.V. for about one hour. I went to the recreation hall and began dancing. While dancing I became weak and began to stumble around."

While the patient was dancing, the attendants noticed that he appeared to be over-sedated. He was drowsy and his gait was so unsteady that he had to be helped in walking. He was taken to the ward where his blood pressure was found to be 130/90. He did not appear to be in any distress. The patient admitted having ingested the above-mentioned excessive quantities of Librium, but since 6 hours had elapsed between the ingestion of the Librium and the discovery of the patient's suicidal attempt, no gastric lavage was carried out.

The patient's blood pressure was determined at frequent intervals; he was not allowed to lie down, but was kept walking; he was given coffee at frequent intervals. Early next morning the blood pressure was 118/94, but the patient was resting comfortably and showed no ill effects other than being drowsy. He ate breakfast and except for continued drowsiness, his condition was satisfactory. By the following morning, he stated that he was feeling better, a little weak and drowsy, but he did not show any other ill effects.

Upon questioning, the patient admitted that he had slipped into the drug room and had taken supplies from the Librium bottles of 2 other patients and his own bottle, which together with his allotted quantity accounted for the grand total of 1,630 mg. which he ingested during a 24 hour period.

Summary

Two cases of unsuccessful suicidal attempts with Librium are described. One was a 44 year old white female with a reactive depression who ingested 875 mg. of the compound in one dose and did not inform anyone of her action until the following day. At that time, she noted no ill effects except for ataxia and dysarthria which abated within 48 hours.

The other patient, a 22 year old white male with schizophrenia, ingested 1,630 mg. within a 24 hour period and showed no ill effects except ataxia and drowsiness on the following day. He was given coffee as the sole therapeutic measure. Gastric lavage was not carried out in either of the patients since many hours had passed between the time of ingestion of the compound and the discovery of its ingestion.

These 2 case reports demonstrate the high degree of safety of Librium.

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Scintillation Scanning Of the Liver

Scintillation scanning is the method of choice for determining the size, shape, position, and internal structure of the liver. The principal importance of the diagnostic method at present is to detect primary or metastatic neoplastic deposits within the liver.

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DURING THE PAST five years there has been a rapid evolution of scintillation scanning of the liver to the point that this radioisotope diagnostic test has become the method of choice for determining the size, shape, position, and internal structure of the liver. To date there is still no safe contrast material with which to opacify the liver for roentgenographic study, and none is in immediate prospect.

The theory and instrumentation of scintillation scanning of the liver have been discussed in a number of papers, including one of our own,[1-4] and early clinical experience has been reported as well. Briefly, a crystal scintillation counter is mounted in an apparatus which will move it back and forth in a plane parallel to the patient's body through an orderly, predetermined pattern. Small doses of radioactive tracer materials may be deposited in the liver either within the parenchymal cells (I^{131}-tagged rose bengal) or within the reticuloendothelial, or Kupffer's, cells (radioactive colloidal Au^{198}). As the moving scintillation counter detects radioactivity, it transmits information to a printing circuit which assembles the radioactivity counts in the form of a picture of the liver.

Of decisive importance in the scanning system in use in our institution is the background eliminator, a device used to exclude unwanted background counts arising from isotope-containing blood in surrounding organs and tissues. The usefulness of this device is reflected in Fig. 1a, which shows that without the aid of the eliminator the outline of the liver can barely be distinguished from surrounding background. Of even greater importance, the defect in the internal pattern due to the presence of a known large hepatic hilar metastasis (Fig. 1b) certainly cannot be distinguished without the use of this defining instrument.

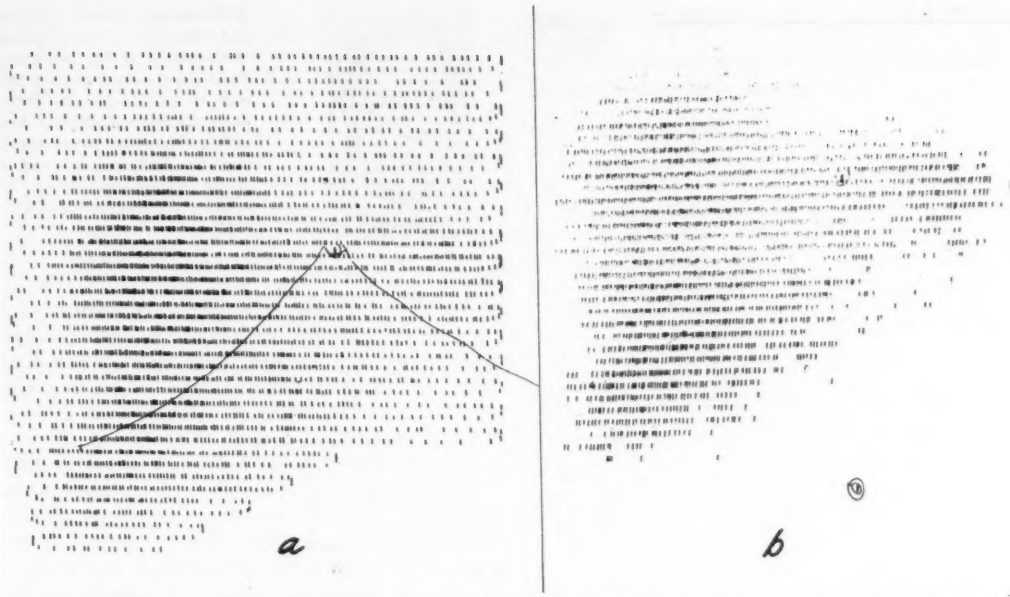

Fig. 1a. Hepatoscan made with conventional scanning apparatus shows liver plus background counts arising from presence of tracer radioisotope in surrounding tissues. Contour of liver can barely be defined. (Reprinted by permission of the *Southern Medical Journal*.)

1b. Same data from same patient as processed by a background eliminator. Outline and internal pattern of liver can be clearly defined; in addition "hole" in pattern just to the right of patient's midline can be seen. Defect represents metastasis from adenocarcinoma of colon.

Liver scanning has been used to establish the position of the liver in the presence of right upper quadrant masses, or in the presence of apparent elevation of the right leaf of the diaphragm. It has also been used to estimate the viability of the various portions of a traumatically ruptured liver before and after surgical repair. Interesting though these applications are, the principal importance of the hepatoscan at this time is its ability to detect primary or metastatic neoplastic deposits within the liver, where they

Fig. 2. Normal liver scan. Xiphoid process is designated by curved line and cross.

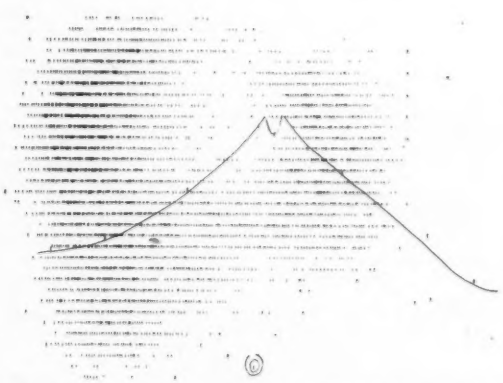

Fig. 3. L. P., white female, 60. Large defect in center and left lobe of liver was found at surgery to represent a 5 by 5 by 5 inch solitary metastatic adenocarcinoma from unknown primary lesion, possibly remote polyp of transverse colon. Solid line represents costal margin.

appear as defects in the normally uniform scan pattern. The fact that neoplasms appear as defects or

Fig. 4. L. C., white male, 37. Large defect in inferior portion of right lobe of enlarged liver is presumed to be attributable to metastases from embryonal cell carcinoma of testis. Solid line represents costal margin, and dotted line margin of palpable mass.

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"holes" is attributable to their low content of the tracer radioisotope, for neoplasms, even of hepatic origin, will not selectively take up the tracer materials used as will the surrounding normal liver tissue.

The uniform pattern of a normal liver, as seen in Fig. 2, may be compared with that of Fig. 3, in which a large defect or "hole" is seen just to the left of the midportion of the liver. At surgery, this was identified as a 5 by 5 by 5 inch solitary lesion within the liver substance. On biopsy a diagnosis of metastatic carcinoma of unknown origin was made.

Fig. 4 and 5 show huge metastases to the right lobe of the liver from primary tumors of the testis and breast, respectively. In Fig. 6 a large tumor mass has replaced the dome of the liver and much of the upper portion of the right lobe, and has displaced the

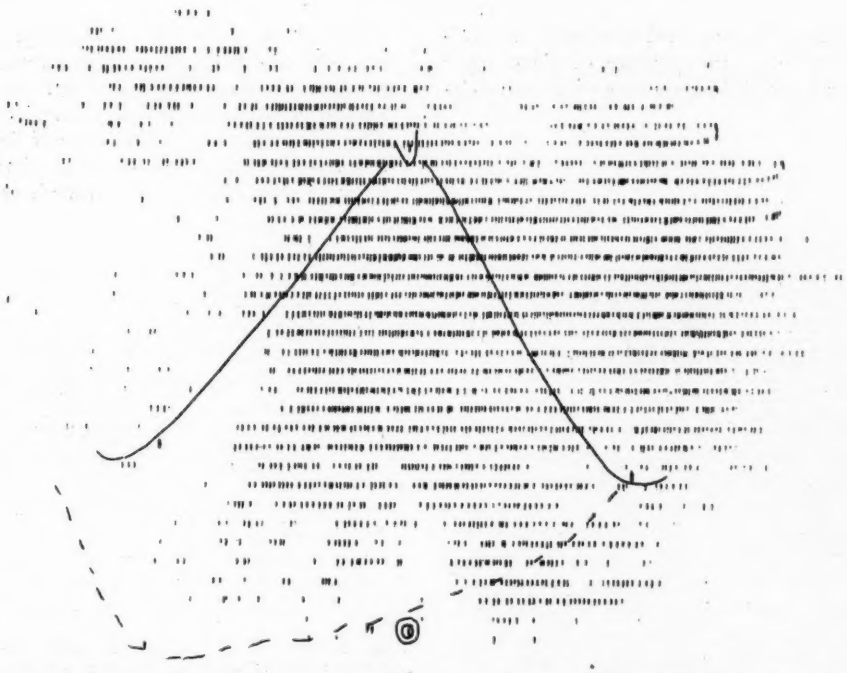

Fig. 5. M. B., white female, 73. Metastases from carcinoma of breast diffusely involve right lobe and displace enlarged liver to the left. Solid line represents costal margin, dotted line margin of palpable mass, and concentric circles the umbilicus.

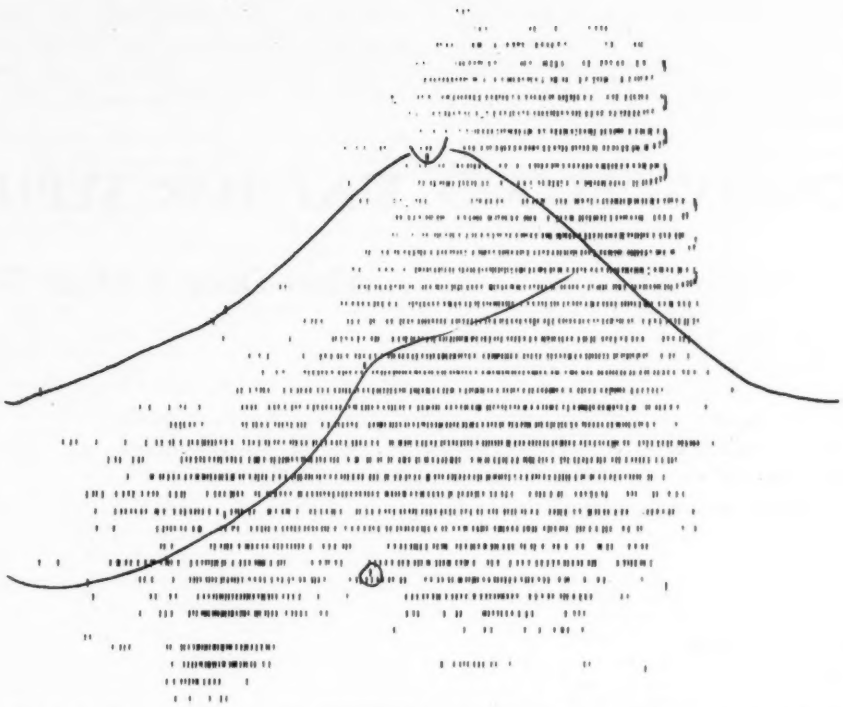

Fig. 6. S. M., white female, 53. Metastases from adenocarcinoma of unknown origin have destroyed dome of liver and upper portion of right lobe, and have displaced the enlarged liver downward and to the left. Upper solid line represents costal margin, and lower line margin of palpable mass.

entire organ downward and to the left. Metastatic tumor was identifiable as adenocarcinoma from a needle biopsy specimen but its origin was never determined.

The hepatoscan should be employed routinely when there is a question of primary or metastatic liver tumor. The procedure is useful in establishing the prognosis in a specific patient, and in follow-up study in cases in which late hepatic metastasis is suspected.

With the apparatus currently available, tumor masses as small as 1.0 cm. might be detected in the relatively thin left hepatic lobe, whereas neoplasms buried within the substance of the thicker right lobe may have to attain a size of 2.0 to 2.5 cm. to create defects in the hepatoscan pattern. Considerable developmental work is being done, however, to increase further the usefulness of an already interesting and important technique.

Summary and Conclusions

Radioisotope tracer scintillation scanning of the liver is a useful test in detecting primary or metastatic tumors within the substance of the liver. A number of hepatoscans are shown, and characteristic patterns of neoplastic defects are described.

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Drs. Bonte, Baldwin, Harris, and Tseng and Mr. Krohmer, 5323 Harry Hines Blvd., Dallas 35.

A POSITIVE BLOOD TEST FOR SYPHILIS

What Does It Mean Today?

Biologic false positive reactions in blood tests for syphilis constitute a major problem. When a patient with this type of reaction is identified, detailed clinical investigation is indicated to determine the cause, as such results may first disclose a grave collagen disease such as lupus erythematosus.

MORRIS POLSKY, M.D.
AUSTIN, TEXAS

THIS PRESENTATION is intended (1) as a brief review of certain changes in serologic techniques and customs which should be familiar to clinicians and (2) as a characterization of the biologic false positive reaction for what it is today: a major medical problem.

Three modern developments provide most of the basis for the present discussion:

1. The incidence and urgency of the syphilis problem is much diminished in this past 15 years, since the introduction of penicillin.
2. Meantime, tests using treponemal antigens permit recognition of the biologic false positive reactor with a high degree of accuracy.
3. Concurrently physicians are becoming increasingly aware of the collagen diseases, their multiple manifestations, and their interesting effects upon the serologic tests for syphilis.

Serologic Tests

From Wassermann's time in 1906 until about 1946, the antigens for performance of these tests were made from crude alcoholic lipoid extracts of animal tissues, known as *lipoidal antigens.* In 1946, the crude extract of beef heart was purified chemically and called *cardiolipin.* This substance sensitized with cholesterol and lecithin gives an antigen far superior to the older crude extracts, and has virtually displaced lipoidal antigens. Today all of the important serologic tests for syphilis employ cardiolipin antigen except the Kahn test, which still uses lipoidal antigen (Table 1).

In the reporting of such tests, great changes have occurred in recent years. *In qualitative reporting,* the familiar forms of "4 plus, 3 plus, 2 plus, 1 plus, plus-minus, and negative" are largely discarded. This is good because the system falsely suggested a numerical relationship where none existed. Actually, 4 plus was not two times 2 plus in significance, but it was often so interpreted. Modern laboratories render qualitative reports as *reactive, weakly reactive,* or *nonreactive.*

Quantitative reporting, a development of the past 15 years, can be tremendously valuable to the clinician.[13] Unfortunately, quantitative reporting is not widely understood as yet, and is often misunderstood. What a quantitative report does is to indicate the highest dilution of the serum which gives an unequivocal positive reaction, such as undiluted, 1:2, 1:4, and so on, up to 1:256. Two sera might each give what was formerly called a 4 plus reaction, but on serial dilution it is found that one does it only

TABLE 1.—*Serologic (Non-treponemal) Tests for Syphilis.*

(In these tests, humoral antibody is known as "reagin" and is non-specific; i.e., it does *not* react with T. pallidum.)

I. Older Tests: antigen lipoidal—crude extract of beef heart tissue.
   A. Flocculation: Kahn (1921),* Kline diagnostic (1932), Kline exclusion (1933), Eagle (1932), Hinton (1935), Mazzini (1939).
   B. Complement fixation: Wassermann (1906), Kolmer (1918), Eagle (1935).

II. Newer Tests: antigen cardiolipin-lecithin—purified extract of beef heart tissue.
   A. Flocculation: VDRL slide (1946), VDRL tube (1946), Kline standard (1948), Mazzini (1949), Hinton (1949).
   B. Complement fixation: Kolmer (1951).

*Figures in parentheses indicate year test came into use.

at 1:2, whereas the second still does it at 1:128 or 1:256.

The main value of quantitative reports lies in judging what is happening to a particular patient: for this it is extremely useful. It is *not* useful in comparing two different patients; a patient with a 1:128 positive reaction does not necessarily have more syphilis than one with a 1:16 or 1:4 reaction.

These factors can be judged from successive quantitative tests:

1. Response to modern antisyphilitic treatment. Therapy is completed in too short a time to hope for a reversal to a negative reaction. A reduction in the titer may be the only clue—and a valuable one—as to the success of treatment. When there is no reduction in the titer, prolongation of treament is often justified.

2. Conversely, clinical relapse is regularly heralded by a rise in titer—a valuable warning sign.

3. True prenatal syphilis can be differentiated from passively transferred "positive blood" (that is, reagin) in the newborn.

4. Serofastness can be accurately detected.

5. Acute biologic false positive conditions can be detected.

Treponemal Tests

In 1949, Nelson and Mayer[11] demonstrated that actively motile and virulent syphilis spirochetes can be halted, or immobilized, as they freely swim about under the dark field by a substance present in syphilitic blood serum. This demonstration they named the "Treponema pallidum immobilization test," and this is the basic test of this group of procedures. Immediately after this discovery came the other tests listed in Table 2, all of them interesting and valuable.

Without going into the complexities of the techniques involved[3, 4, 6] the tests most widely used are the Treponema pallidum immobilization and the Reiter protein complement fixation procedures, with the fluorescent treponemal antibody test attracting a great deal of attention recently.[4] At the Texas State Laboratories, the Reiter test is used for screening, and sera with negative or doubtful reactions are subjected to the Treponema pallidum immobilization test on request. The conjoined use of these two tests is extremely effective.

TABLE 2.—*Treponemal Tests for Syphilis.*

(In these tests, humoral antibody is specific; i.e., true antibody. It *does* react with T. pallidum or its products.)

I. Tests using living T. pallidum as the antigen
   A. TPI: Treponema pallidum immobilization (1949).*
   B. TPMB: Treponema pallidum methylene blue (1955).

II. Tests using dead (preserved) T. pallidum as the antigen
   A. TPA: Treponema pallidum agglutination (1953).
   B. TPIA: Treponema pallidum immune adherence (1954).
   C. FTA: Fluorescent treponemal antibody (1957).

III. Tests using extracts of T. pallidum as the antigen
   A. TPCF: Treponema pallidum complement fixation (1956).
   B. RPCF: Reiter protein complement fixation, or KRP: Kolmer Reiter protein (both 1957).

*Figures in parentheses indicate year test came into use.

The general relationship between serologic tests and treponemal tests for syphilis are shown in Fig. 1. In an area at one end, serologic tests are positive and treponemal tests negative. It includes two groups of patients: those with early cases of syphilis, who have developed reagin but who have not yet developed antibodies to the Treponema, and nonsyphilitic subjects, that is, those with biologic false positive reactions.

At the other end of the chart are patients with symptoms or histories suggesting syphilis, but with serologic tests for syphilis negative. Here positive results from treponemal tests strongly suggest the presence of syphilis. In the large group of patients (represented in the middle) with positive reactions to both tests, the treponemal test is a valuable confirmatory procedure.

Thorough and critical evaluation demonstrate that the treponemal tests for syphilis have neither the infallibility nor the specificity at first attributed to them. As recently as late 1958, many thought that a positive reaction of this type always meant that the patient had or formerly had syphilis and that a negative reaction (except in early cases) virtually excluded syphilis. Unfortunately, this is not true. Extensive objective studies have shown that treponemal tests for syphilis have their inaccuracies and their patterns of sensitivity and specificity. Those who are interested in syphilology should study these

patterns and characteristics of the tests in various situations, just as others have studied the serologic tests for syphilis in the past, for they will be called on for intelligent evaluation of discrepant results.

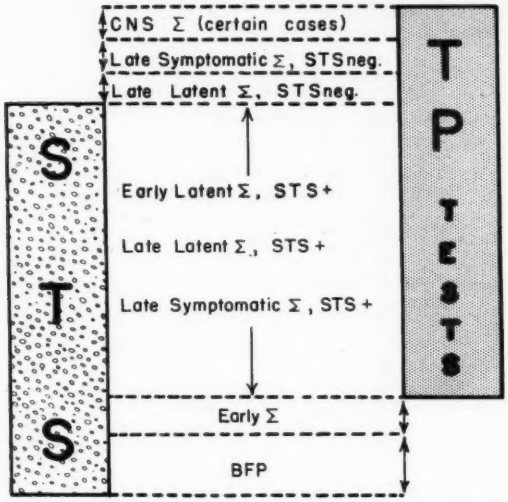

Fig. 1. Comparison of areas where serologic tests (STS) and treponemal tests for syphilis (TP), respectively, usually show positive results. (Greek letter *sigma* symbol for syphilis.)

There is, however, an area in which the treponemal tests for syphilis are extremely valuable, and that is in determining the presence of biologic false positive reactions. Recently a comprehensive coordinated study was reported by a group sponsored by the Public Health Service, known as the Serology Evaluation Research Assembly.[2] Fig. 2 shows one phase of this study, a comparison of treponemal tests (upper two groups) and serologic tests (lower group) in a study of biologic false positive reacting sera. The superior value of the treponemal tests is evident. Actually, the difference was even more outstanding, as the entire study indicated that two tests (in the JHU group) ought to be excluded from consideration. Without them the treponemal tests are remarkably accurate.

Biologic False Positive Reactions (BFP)

The term "false positive" in this sense is unfortunate. The tests are by no means false; they often reveal the presence of serious diseases other than syphilis. However, this term, like a number of other illogical and even ridiculous terms (for example, "ringworm") is apparently here to stay.

TABLE 3.—*Diseases That Produce Acute Biologic False Positive Reactions.*

Malaria	(100%)
Relapsing fever	(30%)
Leptospirosis	(10%)
Infectious hepatitis	(10%)
Subacute bacterial endocarditis	(5%)
Pneumococcic pneumonia	(5%)
Chancroid	(5%)
Scarlet fever	(5%)
Measles	(5%)
Chicken pox	(5%)
Rat bite fever	(20%)
Vaccinia	(20%)
Atypical pneumonia	(20%)
Infectious mononucleosis	(20%)
Lymphogranuloma venereum (?)	(20%)
Typhus fever	(20%)
Filariasis	
Hyperproteinemia	
Tuberculosis	
Leishmaniasis	

The following conditions can produce biologic false positive reactions:

Acute biologic false positive reactions. This type of false positive reaction can occur with a large number of diseases. In fact, Rein and Reyn[13] and other serologists have stated that any metabolic or febrile episode may briefly influence the reliability of the serologic tests for syphilis.

Diseases known to produce acute biologic false positive reactions are shown in Table 3; if incidence has been reliably studied, it is shown in parentheses.

The management of these conditions is not difficult. First, quantitative readings from serologic tests for syphilis will show falling titers and indicate early that these are probably false positive reactions. Second, the passage of sufficient time will completely erase the positive reactions.

Chronic biologic false positive reactions. The diseases which produce this type of false positive reaction are much fewer in number (Table 4). In routine practice in this country, groups 2 and 3 are seldom encountered. Therefore, most of the remaining discussion will be devoted to the first category.

With the continued decrease in the incidence of syphilis, there is a significant *relative* increase in

TABLE 4.—*Diseases That Produce Chronic Biologic False Positive Reactions.*

1. Collagen diseases, especially
   a. Systemic lupus erythematosus (SLE)
   b. Rheumatoid arthritis
2. Treponematoses, especially
   a. Yaws
   b. Pinta
3. Leprosy

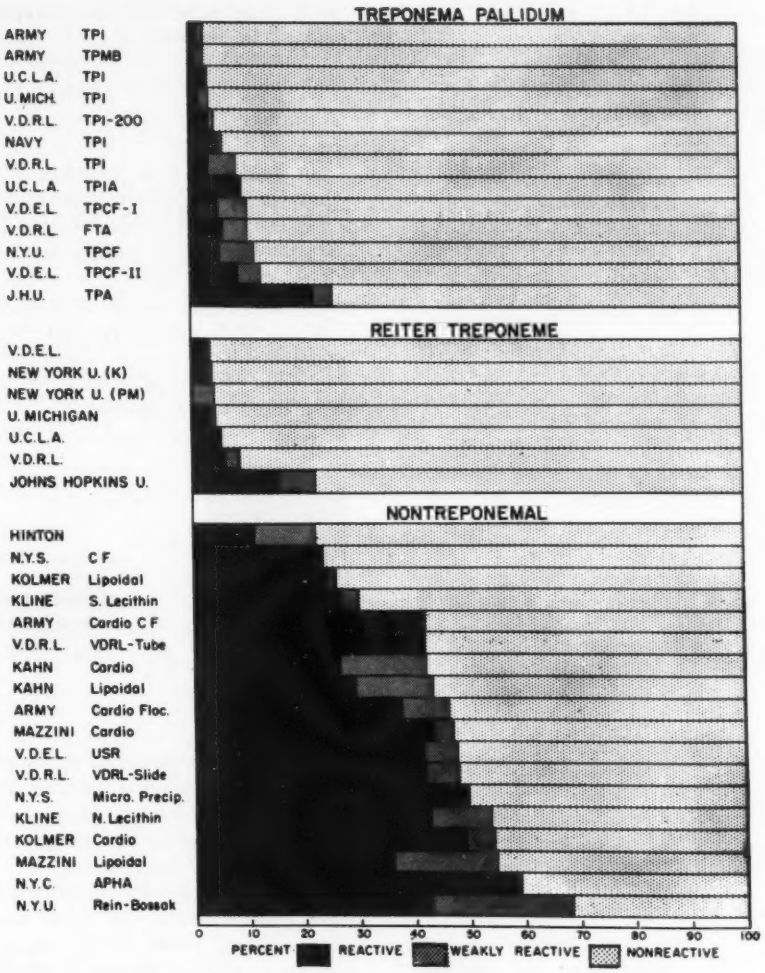

Fig. 2. Comparison of results in biologic false positive sera, as between two sets of treponemal tests (Treponema pallidum and Reiter treponeme or RPCF) and non-treponemal, or serologic, tests. Biologic false positive (positive STS, negative TP, 117 specimens). (Reprinted from Department of Health, Education, and Welfare, Public Health Service: Serology Evaluation Research Assembly [SERA], Public Health Rep. no. 650, Washington, D. C., U. S. Gov't Printing Office.)

incidence of biologic false positive reactions. Indeed, one reliable study indicates that of white people with positive results of serologic tests who were in the upper socioeconomic levels, with no clinical and no anamnestic evidence of syphilis, *as many as 40 per cent* were biologic false positive reactors.[9]

The Chronic BFP Reactor

It can be accurately determined that many positive results of serologic tests are false positive reactions. As a result of this and of increased new knowledge of the collagen diseases, the biologic false positive reaction is no longer a mere nuisance; it is a formidable problem—in some respects a greater problem that syphilis *per se*.

These facts are known about the chronic biologic false positive reaction:

1. It is frequent in occurrence, about twice as frequent in females as in males, and more frequent in younger persons of both sexes.[9]

2. It is more alarming prognostically in females, of whom 51 per cent develop grave collagen vascular disease (as compared with 32 per cent in males).

3. It is often first discovered on routine testing

of people in apparent good health.[13]

Of the biologic false positive reaction *in collagen disease,* these facts are known:

1. Frequently, it is followed in a few years by systemic lupus erythematosus, or conditions strongly suggesting SLE. Moreover,

2. A sustained chronic biologic false positive reaction can be present for from 1 to 4 years, before any other manifestations of systemic lupus erythematosus. In fact,

3. The factor which induces biologic false positive reactions is one of the first detectable preclinical signs of systemic lupus erythematosus.[5]

In the laboratory study of the chronic BFP reactor, cognizance is taken of a group of manifestations which typify a condition known as *dysgammaglobinemia.* Those manifestations are:

1. The biologic false positive reaction *per se.*

2. Abnormal protein flocculation tests, especially *cephalin flocculation* and *thymol turbidity.**

3. Increase in the sedimentation rate.

4. Increase in serum globulin.

5. Disturbed electrophoretic patterns

6. Finally, and probably much later, the LE cell phenomenon.

Obviously, these findings can be matters of great concern. Their relationship to the present discussion inheres in this important fact: When a chronic biologic false positive reaction is discovered, sooner or later in 82 per cent of cases, one or more additional manifestations of dysgammaglobinemia will appear. Thus, in the diagnosis of grave collagen disease, another signpost is uncovered by the biologic false positive reaction.

This means for detection of systemic lupus erythematosus has taught one other thing, and that is a drastically broadened concept of the disease. Not all systemic lupus erythematosus is fulminating and rapidly disabling. There are also cases which are gradual in onset; slow in their course, lasting years; and relatively benign. There may even be spontaneous cures.

On the basis of current knowledge, this is a reasonable summation of the proper modern procedure with a patient with a biologic false positive reaction: The diagnosis cannot be made without confirmation by one or more of the treponemal tests. Certain other studies are then in order, notably: the serum electrophoretic pattern, cephalin flocculation and thymol turbidity tests, sedimentation rate, and complete blood count.[7, 8] If some of these tests give positive results, more careful observation, with their repetition from time to time, is indicated. If test results are all negative, yearly observation with special attention to such things as joint pains, unexplained fevers, and malaise are necessary.

**These are probably much more indicative of dysgammaglobinemia than of liver disease.*

Summary

In conclusion, these considerations are emphasized about the biologic false positive reaction.

1. The problem of the biologic false positive reaction is *not* solved; in a sense it is a greater problem than syphilis.

2. With continued decrease in the incidence of syphilis, there is a relative increase in biologic false positive reactions.

3. The biologic false positive reaction is not an anomaly or a freak reaction.

Dr. Morris Polsky, Austin dermatologist, read this paper before the Texas Dermatological Society on April 11, 1960, in Fort Worth.

4. It is one manifestation of tissue injury, probably chiefly of collagen and vascular tissue—often the first such manifestation. Months or years later, a grave collagen disease such as systemic lupus erythematosus[5] may be apparent.

5. When a physician identifies a chronic biologic false positive reactor, he is no longer justified in dismissing his patient with congratulations on the absence of syphilis. Instead, a lengthy and detailed clinical investigation is indicated to find the cause of the biologic false positive reaction.[9]

There is, indeed, much irony in this last statement. For years a good verification procedure has been sought. Now that it is available, the biologic false positive reaction problem is not lessened, but instead is magnified.

Incidentally, one often hears speculation that since specific tests are available, perhaps serologic tests for syphilis can soon be abandoned. This is a fallacy. With all their deficiencies, these procedures have a time honored record of highly sensitive and specific performance; they are certainly unchallenged as the most effective device in screening for syphilis. Furthermore, these tests, routinely performed, detect biologic false positive reactors long before clinical manifestations of the disease responsible for the false positive reaction have developed. This can be a valuable, even life saving, discovery.

Finally, treponemal tests are *not* usable at this time

for either a criterion of the cure of syphilis or an indication for retreatment of sero-resistant cases. Their prime indications are for differentiating the biologic false positive reaction from that indicative of true syphilis.

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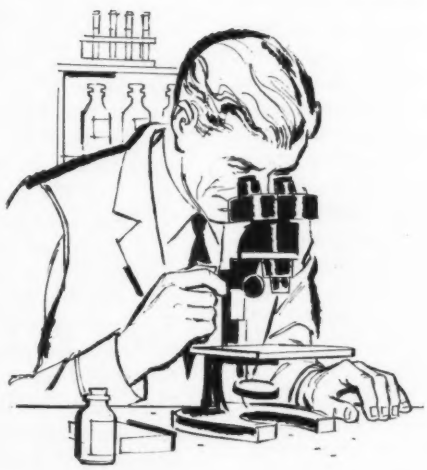


MEDICOLEGAL NOTES

Taxation and Annuity Programs

A comment upon two recent cases in the United States Tax Court which involved physicians should be of interest to medical practitioners in Texas. These cases will be of special importance to any physician who has or is contemplating any type of arrangement with a hospital which involves, as part of his compensation, annuity programs.

The first of these cases was *Zelterman v. Commissioner of Internal Revenue* (34 T.C. 8). Dr. Zelterman, during the years 1954, 1955, and 1956, acted as a radiologist for two hospitals. Services were rendered pursuant to oral contracts whereby his compensation was measured by a percentage of the charges made by the hospitals for x-ray services. During 1954, at Dr. Zelterman's request, the hospitals ceased to pay this compensation in cash, but used it to purchase annuities for him at the end of each year. The issue raised by this case was concerned with whether the money used to pay the annuity premiums was taxable income to him. After receiving an unfavorable decision from the Internal Revenue Service, he appealed to the United States Tax Court, which subsequently affirmed the decision of the Internal Revenue Service that the money used to pay the annuity premiums was taxable income to Dr. Zelterman. The Internal Revenue Service took the position that the amounts expended by the hospitals for annuity contracts constituted earnings which were available in cash without substantial limitation or restriction, and that the hospitals had merely acted at the request or direction of Dr. Zelterman in purchasing the annuities.

In its opinion the Tax Court held that:

> ". . . In substance the hospitals were acting at his direction in purchasing the annuity contracts with his current compensation. The effect was the same as if the petitioner had drawn down the cash and purchased the annuities himself . . ."

Apparently the Tax Court justices felt that some individuals might take this decision as merely indicating that had there been a more binding agreement between the hospital and physician as to the use of these funds, the same result might not have been reached. In conclusion they stated that:

> ". . . It may be added we do not imply that, had the arrangements between the petitioner and the hospital constituted binding restrictions upon his right to draw down his current compensation, they would have been effective to defer tax thereon under the circumstances of this case . . ."

Shortly after the decision in the Zelterman case, another case involving Dr. Llewellyn, a pathologist, reached the United States Tax Court. There had been an agreement between Dr. Llewellyn and two different hospitals that pursuant to his performance of pathologic services for the hospitals he would be paid a certain percentage of the hospitals' laboratory receipts. There was the further agreement that from these amounts the hospitals would deduct specified sums for deposit in annuity funds. Once again, the Internal Revenue Service took the position that the money paid into these annuity funds was taxable income to the physician, and once again this result was upheld by the United States Tax Court on the grounds that the circumstances were essentially the same as those in the Zelterman case. The Court stated further in its opinion that:

> ". . . We conclude that the annuities in question were paid for out of petitioner's compensation and that a realistic appraisal leaves no doubt that the annuity transactions were the same in effect as if the total compensation had been paid directly to the petitioner and that he thereupon purchased the annuities from such funds . . ."

The results reached in these two recent cases certainly casts doubt on the tax-saving feature of certain annuity plans which some physicians may be participating in, and care should be exercised to avoid the tax problems confronted by the physicians in the above cases.

—PHILIP R. OVERTON, LL.B., Austin.

"Healing is a matter of time, but sometimes it is also a matter of opportunity."

Hippocrates

Heart Disease Symposium Set February 19 in Fort Worth

The eighth annual postgraduate symposium on heart disease of the Fort Worth Heart Association will be held February 19, in Fort Worth.

The program will include the following presentations: "Cardiac Arrest and Resuscitation," Dr. Hugh E. Stephenson, Jr., professor and chairman of Department of Surgery, University of Missouri School of Medicine; "Chelating Agents in the Treatment of Atherosclerotic Vascular Complications," Dr. Norman E. Clarke, chairman, Department of Research Providence Hospital, Detroit; and "Clot Lysing Agents," Dr. Eugene E. Cliffton, chief, Clotting Mechanisms, Sloan-Kettering Institute and associate professor of clinical surgery, Cornell University Medical College, New York.

There is no registration fee. Those desiring further information may write Dr. Gordon B. Kelly, 1500 South Main, Fort Worth.

Student Research Forum Set For April 21 in Galveston

The second annual Student Research Forum of the University of Texas Medical Branch in Galveston, believed to be the only meeting of its kind in the country, has been set for April 21, 1961.

At the meeting, students will make their first public appearances as independent medical lecturers, presenting to their peers and visiting faculty members original research work conducted at the student level. Last year for the first time 75 such papers were presented.

The event is sponsored by the local chapter of the Student American Medical Association, and is supported by Sigma Xi, the Research Committee, the United States Public Health Services, and the McLaughlin Fund. Although faculty members afford direction and encouragement, the program is entirely the result of pilot investigations of the students themselves.

Invitations have been extended to students from seven other medical colleges of the district of SAMA —Southwestern, Baylor, Oklahoma, Tulane, Arkansas, Mississippi, and Tennessee.

Those interested in further information concerning the conference may write, Ira Goldstein, P. O. Box 277, Medical Branch Post Office, Galveston.

College of Medical Evangelists To Meet in California in March

New and improved methods of diagnosis and treatment will be studied in the twenty-ninth annual Alumni Postgraduate Medical Convention of the College of Medical Evangelists, March 12-16, 1961, in Los Angeles.

Refresher courses in internal medicine, surgery, obstetrics and gynecology, and pediatrics are designed to inform the physician on new developments in medical science. They are approved for credit by the American Academy of General Practice. A series of scientific lectures and panel discussions also will be presented, with a total of 18 national and local medical authorities participating.

For additional information, those interested may write to the Office of Public Information, 1720 Brooklyn Avenue, Los Angeles 33.

University of California Plans Spring Tour to Israel

A medical tour of Israel constituting a clinical postgraduate program will be offered by University of California's Extension department of continuing education in medicine April 20-May 15.

Opportunities will be provided for physicians to observe the rapid development of modern medical care in Israel and to become acquainted with staff members of three institutions. Outstanding Israeli physicians will discuss management of several unusual tropical diseases, as well as more common problems in internal and tropical medicine.

Participants will go by airline, and stopovers have been provided in Paris, Istanbul, Athens, and Rome. Inquiries concerning the tour may be addressed to: Dean of Continuing Education in Medicine, UCLA Medical Center, Los Angeles 24.

Handwriting Instruction for Doctors

The AMA News in its "Capsules of the News" reports that handwriting instruction is underway at New York City's Mount Sinai Hospital to improve penmanship legibility among medical personnel. Results of the project will be made available to educators and medical personnel throughout the nation.

March of Dimes Aid Texans

Texas has been the principal beneficiary in the allocation of March of Dimes funds raised in the state during the past 23 years, according to a financial summary prepared by the National Foundation. The annual drive is being held this month.

More than 84 cents of every dollar from Texas' March of Dimes has been put to use in aiding the state's disease victims and in research and education projects conducted by Texas institutions.

Of the remaining 16 per cent accruing to the national headquarters, a large portion also has come back to Texas in shipments of poliomyelitis vaccine and gamma globulin and in other nationwide services conducted by the Foundation.

The summary covers the period since the first March of Dimes drive was held in January, 1938, and compares the net total of funds raised in the state with amounts made available to Texas through September 30, 1960. In this period, Texas chapters of the March of Dimes organization raised a net total of $28,255,310.30 at an average fund raising cost of less than 7 per cent. Of this amount, $20,878,742.57 has been available to the county chapters in carrying out extensive patient aid programs, including advances of $8,592,351.71 from the national office to meet local emergencies.

In addition, 65 grants totaling $2,946,584.11 have been made in support of research and professional education projects at Texas institutions. The foundation also has financed within the state projects such as the historic field trials which proved the effectiveness of the Salk vaccine, epidemiologic studies, and scholarship and fellowship grants to Texas residents.

New Research Center

A medical research center costing $2,000,000 will be constructed on the campus of the University of Texas Southwestern Medical School at Dallas.

The project will be known as the Dan Danciger Research Center and was made possible by a gift of $750,000 from the Dan Danciger Fund through cooperation with the Southwestern Medical Foundation, which allocated $250,000. The sum will be matched with a $1,000,000 grant from the United States government.

Danciger, a Fort Worth oil man and business leader who died in 1955, was known for his lifelong interest in preventive medicine.

Missing Instruments Found In Laundry by Electronic Detector

The University of Texas Medical Branch's new electronic-metal detector recently recovered $122.83 worth of forceps, hemostats, scissors, and other items from the hospital laundry, it was reported in the mid-December issue of the *University Medical Center News,* publication of the Medical Branch.

The extra handling cost of the experiment, however, totaled $132 worth of labor, or $10 more than the value of the instruments.

Nevertheless, the metal detector, donated by Union Carbide Company's Texas City plant, will continue to be used to screen the laundry on a money-saving basis. An analysis of the experiment revealed that all but one instrument, worth $7.38, was recovered from the laundry of a single department.

Screening that department's laundry will continue, at a mere fraction of the extra-handling cost. One element of the mystery story will not be revealed: the name of the department whose laundry is under continuing electronic scrutiny, for reasons of campus harmony.

Blue Shield Plans Report Record Year

During the first 9 months of 1960, more than 1,847,000 persons enrolled in the 74 Blue Shield Plans located in North America. During the same period the Plans paid out approximately $550,000,000 for care rendered to members.

The amount was an all-time high in payments for a 9 month period, and it represented approximately 91 per cent of the total income of all Blue Shield Plans, according to a report from the National Association of Blue Shield Plans. Less than 10 per cent of the total income was spent for administrative expenses.

Membership reached 46,640,348 by September, 1960—an enrollment of one of every four Americans.

Internal Medicine Academy Officers

New officers of the Texas Academy of Internal Medicine were elected December 10 in Dallas. They are Dr. David W. Carter, Jr., Dallas, president-elect, and Dr. Sam C. Arnett, Jr., Lubbock, secretary-treasurer. Dr. Hugo T. Engelhardt, Houston, became president.

Medical Center Dedicated In December Ceremonies

Dedicated in December was the new Gulf Coast Medical Center at Wharton.

Speakers present for the event included United States Representative Clark W. Thompson of Galveston; Dr. May Owen of Fort Worth, President of Texas Medical Association; and Dr. Milford O. Rouse of Dallas, vice speaker of the House of Delegates of the American Medical Association.

Representative Thompson was the principal speaker.

Hospital administrators who spoke were Tol Terrell, administrator of the Shannon West Texas Memorial Hospital in San Angelo, who is past president of the Texas Hospital Association and the president-elect of the American College of Hospital Administrators; and F. R. Higginbotham, administrator of Baptist Memorial Hospital in San Antonio and current president of the Texas Hospital Association.

Master of Ceremonies was Frank S. Haines, president of the Gulf Coast Medical Foundation.

Doctors Attend Washington White House Conference on Aging

Among Texas doctors who were delegates to the White House Conference on Aging, January 9-12, 1961, in Washington, D. C., were Dr. Jack Burton, Cleburne; Dr. James Basden, Dallas; Dr. Ellis Carnett, Dallas; Dr. Evelyn M. Carrington, Dallas; Dr. Raymond Cavness, San Angelo; Dr. Milton V. Davis, Dallas; Dr. Russell L. Deter, El Paso; and Dr. Frederick Dorsey, Houston.

Others include Dr. Edward B. Evans, Prairie View; Dr. Hiram J. Friedsam, Denton; Dr. W. D. Gingrich, Galveston; Dr. Silas Grant, Hillsboro; Dr. Jesse W. Hofer, Houston; Dr. Ernest W. Keil, Temple; Dr. E. M. Lewis, Prairie View; Dr. Harold W. Martin, Dallas; Dr. May Owen, Fort Worth; Dr. J. E. Peavy, Austin; Dr. Milford O. Rouse, Dallas; Dr. C. J. Ruilmann, Austin; Dr. P. R. Russell, Fort Worth; Dr. Robert H. Talbert, Fort Worth; Dr. Vance Terrell, Stephenville; Dr. David B. Vinson, Houston; and Dr. H. Arthur Zappe, Mineral Wells.

Eighty-eight physicians and dentists were assigned to the 212 member Health and Medical Care Section of the Conference. Of the 142 delegates in the Income Maintenance Section, 21 were physicians or dentists.

Personals

Recent parents are *Dr. and Mrs. Walls Thomas Witt* of Temple, who have a boy, Thomas Anderson; and *Dr. and Mrs. T. S. Painter, Jr.*, of Austin, who have a girl, Amy.

Dr. and Mrs. Douglas W. Terry of Austin were wed recently.

Dr. Michael E. DeBakey of Houston was among several health specialists who contributed a chapter in a report presented to President Eisenhower by a commission appointed to develop a broad outline of national objectives and programs for the next decade and longer, and to set up a series of goals in various areas of national security.

Dr. Charles W. Tennison of San Antonio was named president-elect of the National Academy of Plastic Surgeons.

Dr. Theodore P. Votteler of Dallas has been elected to membership in the section on surgery of the American Academy of Pediatrics.

Dr. Tom B. Bond, Fort Worth, was given one of two Gold Medal Awards presented by the Radiological Society of North American, Inc., at its recent meeting in Cincinnati. Dr. Bond was cited as a "distinguished citizen, electrical engineer and radiologist."

EDUCATION

Pediatrics Course to Be Held In Galveston February 13-15

A postgraduate course in pediatrics will be held at the University of Texas Medical Branch in Galveston, February 13-15, 1961.

The course will have a 15 hour credit rating for members of the Texas Academy of General Practice. Tuition fee will be $15.

Guest speakers will include the following: Dr. Hugh Missildine, associate professor, Department of Psychiatry, Ohio State University, Columbus; Dr. William H. Zinkham, assistant professor, Department of Pediatrics, Johns Hopkins University, Baltimore; Dr. Sidney Kibrick, associate professor of medicine, chief of Infectious Disease Division, Boston University School of Medicine, Boston; and Dr. John Hope, assistant professor, Department of Radiology, University of Pennsylvania School of Medicine, Philadelphia.

Those desiring further information on the course may write Dr. Mary Ellen Haggard, Department of Pediatrics, University of Texas Medical Branch, Galveston.

Radioactive Effects on Diet To Be Topic of Study

The presence of strontium-90 and other radioactive elements in typical daily diets in 25 cities across the country (including Austin, Texas) will be investigated by Consumers Union, which recently was awarded a $20,000 research contract by the United States Atomic Energy Commission. The money will be used to help finance the project.

Dexter W. Masters, director of Consumers Union, a non-profit non-commercial consumer organization, announced the governmental grant.

Principal financial support for the new research project will be from the organization's own funds.

Study began this month under the direction of Irving Michelson, director of public service projects. Dr. Cyril L. Comar, director of the Laboratory of Radiation Biology and head of the Department of Physical Biology at Cornell University, will be co-principal investigator.

Obstetrics and Gynecology Board Exams

American Board of Obstetrics and Gynecology has scheduled its next examination (part II), oral and clinical, for all candidates, for April 8-15 at the Edgewater Beach Hotel, Chicago. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates. Candidates who participated in the part I examinations will be notified of their eligibility for the part II examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1962 examinations is August 1, 1961. Candidates are urged to submit their applications as soon as possible.

Radiation Biology Fellowships

The Bowman Gray School of Medicine is beginning a training program in radiation biology and cancer-related research. Traineeships of from 1 to 3 years are being offered to research oriented workers in the basic and clinical sciences.

The traineeships are for training at both predoctoral and postdoctoral levels, and stipends will range from $1,800 to $8,000 per annum. Applications will be accepted until April 15, 1961, for programs to begin July, 1961. Inquiries should be directed to Donald J. Pizzarello, Executive Director, Radiation Biology and Cancer Related Research Training Program, Bowman Gray School of Medicine, Winston-Salem, N. C.

Grants Available In Mental Health

Dr. Rodger A. Moon, San Antonio, psychiatrist-director at the Community Guidance Center of Bexar County, has been awarded an in-service training grant from the Southern Regional Education Board under its program in mental health training and research. He studied new programs of multiple impact therapy at the Youth Development Center in Galveston.

Individual grants up to $500 are available to any employee of a mental health outpatient clinic, mental health center, state commission or division of mental health in any of the 15 states, including Texas, supporting the SREB mental health program.

Applications for grants are now being accepted by SREB, and grants will be acted upon as received. Persons interested in the grants should write to Southern Regional Education Board, 130 Sixth Street, N.W., Atlanta 13, Ga.

DR. A. J. HINMAN

Dr. Alexander John Hinman, New Braunfels physician and surgeon for 48 years, died October 4, 1960, following a cerebrovascular accident.

The son of Bertha and Alexander John Hinman, Dr. Hinman was born at New Braunfels on July 30, 1885. He attended New Braunfels public schools, and was graduated from the University of Texas School of Pharmacy at Austin in 1907, and the University of Texas Medical Branch at Galveston in 1912.

Dr. Hinman had served as the first chief of staff of the New Braunfels Hospital, was past president of the New Braunfels School Board, was a founder and charter president of the Rotary Club, a past president of the San Antonio Knife and Fork Club, and a member of the Chamber of Commerce, the Masonic Lodge at New Braunfels, the Scottish Rite Bodies of San Antonio, and the Alzafar Shrine, San Antonio. He belonged to the Evangelical and Reformed Church.

In addition, he was a member of the Comal County Medical Society (which he served as president in 1934), the World Medical Association, the American

DR. A. J. HINMAN

DR. JOHN R. SESSUMS

Medical Association, and the Texas Medical Association.

He was married April 22, 1913, to Miss Audrey Henderson at the First Christian Church, Dallas.

Survivors include his wife of New Braunfels; two daughters, Mrs. Elmer Smith of Yankton, S. D., and Mrs. Peyton Harriman of Arcadia, Calif.; and a sister, Mrs. Emil Haas of New Braunfels.

DR. JOHN R. SESSUMS

Dr. John Richard Sessums, San Angelo retired physician, died September 15, 1960, of coronary occlusion at Baptist Memorial Hospital in San Angelo.

He was born February 23, 1876, at Crawford, the son of Richard Thomas Sessums and Lydia (Smith) Sessums. He was graduated from the University of Texas Medical Branch at Galveston in 1899. Dr. Sessums began practicing in 1900 in Dublin, where he was associated with the late Dr. T. F. Bryan. In 1928, he moved from Dublin to San Angelo, where he practiced until 1943, when ill health forced him to retire.

He had been elected an honorary member of Texas Medical Association in 1945, was a member of the American Medical Association, the Tom Green-Eight Counties Medical Society (Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher), Modern Woodmen of America, Knights of Pythias, Lions Club, First Methodist Church of San Angelo, and the IOOF.

For his aid to the Selective Service medical examining board during World War II and for his service during World War I, Dr. Sessums was presented citations.

He married the former Elma B. Bateman at Dublin on January 23, 1901. She died September 30, 1955.

Survivors include two sons, Dr. J. Valton Sessums, San Angelo physician, and Dr. Orval B. Sessums, San Angelo dentist. Also surviving are four grandchildren and one great grandchild.

DR. C. P. YEAGER

Dr. Charles Philip Yeager, Corpus Christi, twice Vice-President of Texas Medical Association and the father of 1959-1960 Association President, Dr. Franklin W. Yeager, died October 24, 1960. Death was caused by cirrhosis of the liver.

Born November 8, 1875, in Gainesville, he was the son of Wiley D. Yeager and Nannie E. (Lanius) Yeager. He attended Honey Grove and Bonham High Schools and Southwestern University, Georgetown. In June, 1898, he was graduated from Kentucky School of Medicine, Louisville, Ky.

A general practitioner who frequently said his specialty was the "skin and its contents," Dr. Yeager practiced in Brownwood for a short time and in Pilot Point from 1898 until 1906, and moved to Corpus Christi in 1906, where he practiced for several years. He then served at Bishop, at Kingsville as chief surgeon for the St. Louis and Brownsville Railroad, and in Houston. In 1928, he returned to Corpus Christi, remaining there for the rest of his career.

In 1918, he was stationed at Kelly Field, San Antonio, as a lieutenant in the Army Medical Corps.

Dr. Yeager, an honorary member of the Texas Medical Association, belonged to the American Med-

DR. C. P. YEAGER

ical Association and had served as president of the Nueces and Kleberg County Medical Societies. He was named "Man of the Year" by the Nueces County Society in 1950. He had also been Councilor from District 6. Other medical affiliations included the Southern Medical Association.

He was a former Corpus Christi city councilman, was a trustee and president of the board of Corpus Christi Independent School District for 6 years, was chief of staff at four Corpus Christi hospitals, and was a director of Southwestern University. In addition, he was a member of the Board of Stewards of the Trinity Methodist Church, a Rotarian, and a Mason.

Dr. Yeager was instrumental in founding Del Mar College at Corpus Christi and supported its continuation in that city.

His wife, the former Miss Almeda Scott of Pilot Point, died in 1952.

Survivors include his son, Dr. Franklin W. Yeager of Corpus Christi; a daughter, Mrs. Nancy Swinford Blackburn of Houston; a brother, George Yeager of Duncan, Okla.; two sisters, Mrs. E. W. Hartman of Greenville and Mrs. Robert Kennedy of Wichita Falls; and five grandchildren.

DR. JAMES H. CHERRY

Dr. James Henderson Cherry II, an orthopedic surgeon from Galveston and formerly of Asheville, N. C., died August 28, 1960, in a Galveston hospital.

Born June 22, 1912, in Lewiston, N. C., Dr. Cherry was the son of James Henderson Cherry and Daisy Pritchard (Bridger) Cherry. His preliminary education was in the public schools of Asheville and at Mars Hill College in Mars Hill, N. C., from which he received the associate in arts degree in 1930. He received both his bachelor of science degree and his medical degree from Duke University.

In 1934 and 1935, he undertook his internship at Duke Hospital, Durham, N. C., and his residency at North Carolina Orthopedic Hospital at Gastonia, N. C. He also undertook postgraduate work at the Mayo Clinic. In 1940, he received the master of science degree in orthopedic surgery from the University of Minnesota Medical School at Minneapolis.

He began his medical practice at Asheville where he remained until 1953, except for the period from 1942 until 1946 when he was in the United States Army. During this time he was attached to the Sixty-fifth General Hospital as a consultant in orthopedic surgery and at the Fifteenth Hospital Center in the European Theater of Operation during World War II. He moved to Galveston in 1953, where he was an instructor in orthopedic surgery at the University of Texas Medical Branch.

He was a past president of the Asheville, N. C., Lions Club, and he belonged to the Galveston Downtown Lions Club. He also was a member of the American Legion, a past member of the Elks Lodge and a member of the First Baptist Church of Galveston.

A member of the American Medical Association and the Texas Medical Association, he also was a former member of the Medical Society of the State of North Carolina and the Tri-State Medical Societies. He was a fellow of the American College of Sur-

DR. JAMES H. CHERRY

geons and of the International College of Surgeons, a member of the American Academy of Orthopaedic Surgeons, and a diplomate of the American Board of Orthopaedic Surgery and of the Alumni of the Mayo Foundation. He also belonged to Phi Chi medical fraternity.

In 1957, Dr. Cherry was married to Miss Marion Erwin Bennett of Asheville, N. C., who survives.

Survivors also include his children by a previous marriage, three daughters, Mrs. Ben F. Beasley of Chattanooga, Tenn.; Miss Anna Katherine Cherry, and Linda Faye Cherry; three sons, James H. Cherry III, David Buck Cherry, and Charles E. Cherry of Bald Mountain, N. C.; and a niece, Mrs. Richard H. Culberson of Atlanta, Ga.

DR. BESS BEAKLEY

DR. BESS BEAKLEY

Dr. Bess Beakley, Houston pediatrician, died November 11, 1960, in Houston of cancer.

She was born March 22, 1913, in Hillsboro, the daughter of George W. and Beulah (De Ford) Twitty. Her preliminary education was in Houston. She attended the University of Texas at Austin and was graduated from Baylor University College of Medicine, Houston, in 1947. She interned at Binghamton City Hospital, Binghamton, New York.

Married February 14, 1938, to Howell B. Beakley at Sweetwater, Dr. Beakley was the mother of one son, Ronald David Beakley, who survives. Her husband died in October, 1953.

A Methodist, she was a member of the American Medical Association, the Texas Medical Association, and the Harris County Medical Society.

Besides her son, she is survived by her mother, Mrs. Beulah Twitty of Houston and a brother, Otis Twitty, Wichita Falls.

DR. J. LOUISE VICK

DR. J. LOUISE VICK

Dr. J. Louise Vick, Houston physician and the wife of Dr. George Parker of Houston, died December 1, 1960.

She was born July 24, 1909, at Yoakum, and received her preliminary education at Shreveport, La. She was awarded the bachelor of arts degree from Louisiana College, Pineville, La., in 1929, and the medical degree from the University of Texas Medical Branch at Galveston in May, 1939. She interned for one year at Hospital of the Woman's Medical College of Pennsylvania at Philadelphia. After graduation, she became director of the Memorial Hospital Laboratory at Houston, where she remained until she opened her offices. She specialized in internal medicine.

Dr. Vick belonged to the Texas Medical Association, the American Medical Association, Harris County Medical Society, and St. Paul's Methodist Church.

Survivors include her husband, Dr. Parker; two daughters, Miss Martha Louise Parker and Miss Patricia Lynn Parker; one son, Ed Vick Parker; her father, Leo Vick, all of Houston; and one sister, Mrs. Bill Davis of Baton Rouge, La.

DR. L. R. TALLEY

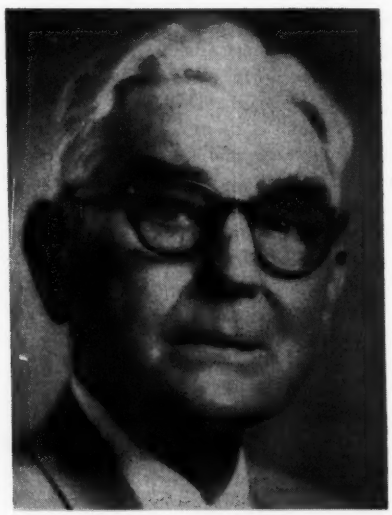
Dr. L. R. Talley, Temple, died October 15, 1960, in Dallas after suffering a heart attack. Dr. Talley and his wife were in Dallas to attend the state fair.

Born July 2, 1882, in Temple, Dr. Talley was the son of Lewis L. and Martha Ellen (Lee) Talley. He attended public schools in Temple, Baylor University at Waco, and Jefferson Medical College, Philadelphia, from which he received his medical degree in June, 1907. He interned at Cooper Hospital, Camden, N. J., and served his residency at Philadelphia Hospital for Diseases of Women and Children. Later, he undertook postgraduate work at Johns Hopkins Hospital, Baltimore, and Postgraduate Hospital, New York. He was certified by the American College of Surgeons.

From 1908 until his death he practiced at King's Daughters Clinic and Hospital at Temple, where he was a surgeon and president of the staff. He had been author of several medical articles. Other activities included farming.

He was a member of the American Medical Association, the Texas Medical Association, Bell County Medical Society, and the Southwestern Medical Association. In addition, he was a fellow of the American College of Surgeons.

He had been chairman of the board of deacons of the Baptist Church for 13 years, was a former trustee of Mary Hardin Baylor College, Belton, former city health officer, and member of the Sanitary and Health Commission, past president of the Temple Chamber of Commerce, member of the Benevolent and Protective Order of Elks, the Temple Country Club, past president of the Temple Rotary Club, and a surgeon for the Missouri, Kansas, and Texas Railroad since 1914. He had also served as president of the District 12 Medical Society and of Bell County Society.



DR. L. R. TALLEY

Dr. Talley is survived by his wife; a daughter, Mrs. Corinne Talley Daniel of Temple; 3 grandchildren; and a brother, J. B. Talley, Temple attorney.

DR. J. H. HANSEN

Dr. John Harvey Hansen, retired general practitioner from Plainview, died November 4, 1960, following a long illness. Death resulted from cerebrovascular accident.

DR. J. H. HANSEN

Dr. Hansen was born August 16, 1887, at Lamoni, Iowa. He received his preliminary education in Vernon, Texas, and his pre-medical training at Kansas City. He was graduated June 10, 1913, from the University of Illinois College of Medicine, Chicago, and he served his internship in Chicago. He practiced in Elkhart, Kan., and Devol, Okla., before moving to Plainview in 1927. He was associated with the Plainview Hospital and Clinic for 32 years prior to his retirement.

At Elkhart, Dr. Hansen had treated distance runner, Glenn Cunningham, who had been burned about the legs in a schoolhouse fire at the age of 7.

During World War I, the physician had served in the Army Medical Corps.

Elected an honorary member of Texas Medical Association in 1960, Dr. Hansen also belonged to the American Medical Association, the Panhandle District Medical Society (District 3), and the Hale-Floyd-Briscoe Counties Medical Society, which he served as president in 1940.

He was married June 30, 1916, to Miss Alice Hy-

barger at Devol, Okla.

He is survived by his wife of Plainview; two daughters, Mrs. Jean Van Winkle of Bozeman, Mont., and Mrs. Mary Ann Sommer of Denver, Colo.; four sisters, Mrs. J. F. Holt, Dallas, Mrs. L. Hopwood, San Antonio, Miss Docia Hansen and Mrs. J. L. Williams, Orlando, Fla.; and one brother, Mr. Fred Hansen of Oklahoma City.

DR. W. E. GRAVES

Dr. William Earl Graves, San Antonio physician and roentgenologist, died October 31, 1960, of lymphatic leukemia, acute appendicitis, calculi in the common bile duct, and pulmonary emphysema.

He was born October 20, 1882, at Mineral Springs, Ark., the son of Oscar Phillip Graves and Katie (Jones) Graves.

After receiving his preliminary education at Mineral Springs, Ark., Dr. Graves attended Henderson State Teachers College at Arkadelphia, Ark., and was graduated with the bachelor of arts degree in June, 1907. He was awarded the medical degree from Tulane University School of Medicine, New Orleans, in 1912.

From 1912 until 1927, he practiced in New Orleans, moving then to San Antonio where he practiced until this year.

He was married April 29, 1911, to the former Miss Elise Muller at New Orleans.

A Methodist, Dr. Graves was a member of the American Medical Association, the Texas Medical Association, and the Bexar County Medical Society.

Survivors include his wife of San Antonio; two brothers, O. A. Graves of Hope, Ark., and Ben C. Graves of Hugo, Okla.; three sisters, Mrs. J. D. Welsch and Mrs. R. P. Barlow of Hope, Ark., and Mrs. Grover Milford of Texarkana, Ark.

DR. L. H. LEBERMAN

Dr. Lowell Henry Leberman, general practitioner and surgeon from Commerce, died October 7, 1960, of a heart attack.

Dr. Leberman was born April 4, 1906, at Austin, the son of Henry N. Leberman and Virginia (Carrington) Leberman. He attended public schools at Austin, received the bachelor of arts degree from the University of Texas at Austin and the medical degree from Baylor University College of Medicine, then located in Dallas, on June 1, 1933. He served his internship and residency at Parkland Hospital, Dallas, and continued his postgraduate work at the Mayo

DR. L. H. LEBERMAN

Clinic in Rochester, Minn. In 1942, he studied tropical disease and medicine at Walter Reed Hospital in Washington, D. C.

He began his medical practice in Crossett, Ark., in January, 1935; and moved to Commerce in July, 1936, where he has practiced since. He was owner of his own private hospital, Leberman Hospital.

During World War II, he served as a lieutenant colonel in the Army Medical Corps. He was at Fort Sam Houston, Walter Reed Hospital in Washington, D. C., and from 1943 until 1945 he served in the North African and Italian Theater.

Other than medicine, his private ventures included real estate, farming, co-owning a drug store.

A member of the American Medical Association, the Texas Medical Association, and the Hunt-Rockwall-Raines Counties Medical Society, Dr. Leberman also belonged to the Pan Pacific Surgical Congress, the Southwestern Surgical Congress, Southern Medical Association, the Texas Hospital Association, and Phi Beta medical fraternity.

He was a member of the First Christian Church, the Chamber of Commerce, the Northwood Country Club, the Dallas Athletic Club, the Masons, DeMolay, and Shriners.

He was a past president of his county medical society, a deacon of the First Christian Church, had served as president of the Commerce school board and as mayor of Commerce.

His hobbies included hunting, fishing, coin collecting, and speedboating.

He is survived by his widow, the former Miss Sue Goldston, whom he married January 1, 1935, at Milford; one son, Lowell Leberman, Jr.; one sister, Mrs. Bynum Turner, New York City, and his mother, Mrs. Virginia Leberman, Austin.

DR. A. B. RINEHART

Dr. Archie Bowen Rinehart, Corpus Christi general practitioner, died October 16, 1960, of cancer of the lung.

He was born in Board Tree, Va., on November 11, 1881, the son of Bowen Rinehart and Agnes (McGuffie) Rinehart. He attended Fairmont State College, Fairmont, W. Va., and was graduated from Eclectic Medical College, Cincinnati, Ohio, on April 18, 1906. After serving his residency and internship at Haskins Hospital in Wheeling, W. Va., he practiced medicine there for 2 years, moving then to McMechen, W. Va., where he served from 1911 until 1926, and to Weirton, W. Va., serving from 1926 until 1946. He received his license to practice in Texas in March, 1947.

During World War I, he served in the medical corps as a lieutenant at Fort Oglethorpe, Ga., at Fort Dix, N. J., and in France. His postgraduate work included a course in New York in 1914, at Edinburgh University in Scotland in 1933, and at Tulane University School of Medicine in New Orleans in 1935, 1937, and 1942.

He was married to Miss Irene German Rinehart of Weirton, W. Va., on June 6, 1931, at Washington County, Pa. The couple had three children.

Elected to inactive membership in Texas Medical Association in 1959, Dr. Rinehart was a member of the Nueces County Medical Society, the American Medical Association, and the American Academy of General Practice. He was a Mason.

Survivors include his wife of Corpus Christi and three sons, all of Weirton, W. Va., and six grandchildren.

DR. CHARLES F. CLAYTON

Dr. Charles F. Clayton, Fort Worth orthopedic surgeon, died October 3, 1960, at his home in Fort Worth. Death was caused by cancer of the prostate.

He was one of the first three orthopedic surgeons in Texas and the first in Fort Worth. He had been active in practice until stricken by illness several months ago.

Dr. Clayton was born January 31, 1886, on a ranch in Fisher County, Texas. He attended Texas A. & M. College and the University of Louisville School of Medicine, graduating in 1911. He was president of his graduating class.

DR. CHARLES F. CLAYTON

Dr. Clayton interned one year at Louisville General Hospital, following which he opened practice in Lubbock, where he remained until entering the Army in 1917. After his discharge from the Army in 1919, he began practice in Fort Worth, limiting his work to orthopedic surgery. He was owner of the Clayton Orthopedic Clinic.

His military service included 21 months in the Army Medical Corps during World War I.

Dr. Clayton's memberships included the American Medical Association, Texas Medical Association, and Tarrant County Medical Society, of which he was past president, the Texas Orthopedic Association, of which he was past president, the American Academy of Orthopaedic Surgeons, Clinical Orthopaedic Society, American Association of Railway Surgeons, and Texas Surgical Society. He also was former chief of staff at W. I. Cook Memorial Hospital and All Saints Hospital, and he was chairman of the Technical Advisory Committee of the Texas Crippled Children's Division of the State Department of Health.

A member of the Broadway Baptist Church, a Mason, and a Shriner, he was presented a life membership in the Moslah Temple for his work with crippled children.

He also belonged to the Fort Worth Boat Club, the Fort Worth Club, and the Ridglea Country Club.

Survivors include his wife, two sons, Fielding Clayton of Norwalk, Conn., and Dr. Irvin Clayton of Fort Worth, who was associated in practice with him; a daughter, Mrs. Carmen Clayton Stripling of Fort Worth; two brothers, A. M. Clayton of Lamesa and Jerry Clayton of Lovington, N. M.; and seven grandchildren.

Identification Button Used

At 1898 Annual Session

INSTEAD OF THE MODERN name tags to be used at the 1961 Texas Medical Association's Annual Session, an identification button such as that pictured in this story were used by doctors at the 1898 TMA session in Houston. The button shown belonged to the late Dr. Joe Gilbert of Hornsby, and was donated to the Association's Memorial Library by his son, Dr. Joe T. Gilbert of Austin.

TMA's ninety-fourth Annual Session will get underway in Galveston, April 23-25. Requests for accommodations for the 1961 Session should be sent to the hotel or motel of choice. For the reader's convenience, a card insert (opposite page 44) in this issue of the JOURNAL lists hotels and motels (with rates) suggested for use by Texas Medical Association visitors. The card should be mailed directly to the hotel or motel preferred. As indicated on the card, second and third choice of hotel or motel should be given so that the reservation may be forwarded in the event that the first choice is filled. The Galveston Convention and Tourist Bureau is coordinating activities with hotels and motels to assure the best accommodations possible.

Blocks of rooms at the headquarters hotels, the Buccaneer and the Galvez, will be held until February 20 for Association guest speakers, delegates, members of boards, councils, and committees. Thereafter rooms will be available at these hotels on a first come-first served basis.

Headquarter hotels are located on the Seawall Boulevard overlooking the Gulf of Mexico. The new Moody Convention Center, located between the Galvez and Buccaneer Hotels, will house the scientific and technical exhibits and the registration and message booths. The majority of the section meetings and refresher courses also will be held in the Moody Center.

The Jack Tar Hotel will serve as headquarters for the Woman's Auxiliary, with registration getting underway at 12:00 noon, Saturday, April 22. Full programs are planned for Auxiliary members for Sunday, Monday, and Tuesday.

Association committee meetings, the first meeting of the House of Delegates at 7:30 p.m., and a few special events are scheduled for Saturday, April 22. A Symposium on Nuclear Medicine and a Symposium on Cerebral Palsy are also scheduled for Saturday. The major portion of convention activity will be launched on Sunday, April 23, with specialty society programs, reference committees, the second meeting of the House of Delegates, and the Memorial Services. The Texas Academy of General Practice Seminar to be offered for Category I credit and the Symposium on Traffic Safety and the Physician will be presented on Sunday, as well.

Refresher courses, section and specialty society programs, motion pictures, general meetings, and general meeting luncheons are scheduled for Monday and Tuesday, April 24 and 25. Alumni banquets will be held Monday evening, with fraternity events and the President's Party on the agenda for Tuesday night. The final meeting of the House of Delegates will be held Tuesday afternoon at 3:30. Scientific and technical exhibits will be on display from Sunday at 1:00 p.m. until Tuesday at 5:30 p.m.

The Council on Annual Session and representatives of the scientific sections and related specialty societies promise a strong, attractive scientific program, bringing to the membership 29 guest speakers and a host of member essayists. Included among the outstanding medical leaders who will participate in the 1961 Session, will be four guests from out of the country—Dr. John B. Fawcitt, radiologist, and Dr. Kathleen Raines, anesthesiologist, both of England; Dr. Walter C. MacKenzie, surgeon of Canada; and Dr. G. Astaldi, pathologist of Italy.

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Rossier, P. H., and others: *Respiration, Physiologic Principles and Their Clinical Applications,* St. Louis, Mosby, 1960.

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Warren, R.: *Procedures in Vascular Surgery,* Boston, Little, Brown, 1960.

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Winkelman, R. K.: *Nerve Endings in Normal and Pathologic Skin,* Springfield, Ill., Charles C Thomas, 1960.

Films Newly Acquired

DECISION (1960). 16 mm., sound, black and white, 29 min., C-102

This film depicts more than 125 personnel at work in routine and emergency situations, and gives a breakdown of hospital income and expenses. "Decision" makes the point that hospitals depend upon public support, and the extent of that support is a major factor in determining the quality of hospital services. It reenacts an emergency situation in which a doctor makes an important decision based on the facilities at his disposal.

50,000 LIVES (1959). sound, color, 13½ min., 16 mm., C-49

How-to-film describing the newly approved mouth-to-mouth rescue breathing technique of artificial

respiration. This new method is so superior to previous manual methods that it has been adopted by the Red Cross and our Armed Forces, in an effort to eliminate the 50,000 lives claimed needlessly by asphyxia each year.

Gifts to the Library

Dr. Carolyn Adlof, Three Rivers, 39 reprints, 362 journals.

Dr. Robert F. Ellzey, Austin, 36 journals.

Dr. Fred T. Hargrove, Carthage, 15 bound journals, 100 journals.

Dr. Harvey B. Henry, Austin, 77 books, 81 journals.

Dr. Henry L. Hilgartner, Austin, 39 journals, 15 pamphlets.

Dr. Richard O. Hunter, Austin, 4 journals.

Mr. O. Ray Hurst, Austin, 8 journals.

Dr. Virgil B. Lawlis, Austin, 63 journals.

Dr. Georgia F. Legett, Austin, 38 journals, 36 pamphlets.

Dr. Robert W. Loveless, Bastrop, 131 journals.

Dr. Richard A. Lucas, Austin, 1 book.

Dr. Robert G. McCorkle, 2 journals, 1 book.

Dr. Filmore E. Meredith, Olney, 162 journals.

Dr. Henry H. Moore, Jr., Seguin, 3 journals.

Dr. Allan H. Neighbors, Jr., Austin, 6 books, 28 journals.

Dr. L. K. Ory, Comanche, 181 journals.

Dr. Thomas G. Price, Austin, 9 journals.

Dr. Lee F. Scarborough, Austin, 2 journals.

Dr. C. A. Selby, Sinton, 251 journals.

Dr. Clifford Thorne, Austin, 2 journals.

Dr. Burbank Woodson, Temple, 953 journals.

University of Texas YMCA and YWCA, Austin, monetary gift in memoriam for Dr. L. H. Leberman of Commerce.

★ County Societies

County Society Briefs

Installation of the *Harris County Society* officers was held January 11 in Houston. Dr. F. J. L. Blasingame, executive vice-president of the American Medical Association, spoke on "What Is the Price?"

County Societies Elect Officers

County medical societies in Texas have announced the following officers for 1961:

Bastrop-Lee.—President, Dr. Francis J. Weishuhn, Smithville; vice-president, Dr. Robert B. Burns, Giddings; secretary-treasurer, Dr. Thomas M. Reedy, Elgin; and delegate, Dr. James W. Thomas, Smithville.

Cass-Marion.—President, Dr. Vernon B. Glenn, Linden; president-elect, Dr. Louise N. Wilcox, Hughes Springs; vice-president, Dr. William S. Terry, Jefferson; secretary-treasurer, Dr. O. R. Taylor, Linden; and delegate, Dr. Joe D. Nichols, Atlanta.

East Harris County Branch of Harris.—President-elect, Dr. C. L. Liggett; vice-president, Dr. H. W. Kilpatrick, III; secretary, Dr. William A. Goodrich, Jr.; and treasurer, Dr. F. L. Jaubert, Jr., all of Baytown. Dr. W. T. Jones, Jr. of Baytown became president.

Ellis.—President, Dr. Nelson W. Jones; vice-president, Dr. Raymnod N. McLean; secretary-treasurer, Dr. Norman L. West; and delegate, Dr. Herbert Donnell; all of Waxahachie.

Hill.—President, Dr. John E. Latham, Jr., Whitney; vice-president, Dr. Robert W. Shirey, Hillsboro; secretary-treasurer, Dr. Charles A. Garrett, Hillsboro; and delegate, Dr. Dick K. Cason, Hillsboro.

Johnson.—President, Dr. R. W. Kimbro, Cleburne; vice-president, Dr. J. W. Pickens, Cleburne; secretary, Dr. H. H. Filardi, Cleburne; and delegate, Dr. Joseph F. Peters, Jr., Alvarado.

Lamb-Bailey-Hockley-Cochran.—President, Dr. E. D. Barnes, Levelland; and vice-president, Dr. J. Randel Fain; secretary-treasurer, Dr. Delmon J. Stafford; and delegate, Dr. William C. Nowlin, Littlefield.

LaSalle-Frio-Dimmitt.—President, Dr. Donald K. Wilson, Carrizo Springs; vice-president, Dr. John M. Crawford, Carrizo Springs; secretary-treasurer, Dr. Dorothy Mainland Brown, Catarina; and delegate, Dr. Emmett N. Wilson, Jr., Pearsall.

Lavaca.—President, Dr. Robert W. Williams, Shiner; sec.-treas., Dr. Robert J. Wagner, Shiner; delegate, Dr. Herman W. Gaddis, Hallettsville.

Nolan-Fisher-Mitchell.—President, Dr. Francis T. N. Hood, Jr., Sweetwater; vice-president, Dr. Clark A. Johnson, Sweetwater; secretary-treasurer, Dr. S. F. Supowit, Sweetwater; and delegate, Dr. Seth B. Cowan, Colorado City.

Orange.—President, Dr. Oscar R. Griffin; vice-president, Dr. Robert A. Ingram; secretary-treasurer, Dr. James P. Cloud; all of Orange.

San Patricio-Aransas-Refugio.—President-elect, Dr. Boyce Elliott, Aransas Pass; vice-president, Dr. Ernest R. Deitch, Sinton; secretary-treasurer, Dr. Charles H. Simpson, Sinton; and delegate, Dr. Claude A. Selby, Sinton. Dr. William A. Guynes of Mathis took over the duties as president.

★ Coming Meetings

American Medical Association. Dr. E. Vincent Askey, Los Angeles, Pres.; Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Exec. Vice-Pres.

Current Meetings

JANUARY

Texas Medical Association, Austin, Jan. 28, 1961; Galveston, April 23-25, 1961. Dr. May Owen, Fort Worth, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Exec. Secy.

Texas Radiological Society, Fort Worth, Jan. 20-21, 1961. Dr. Delphin von Briesen, El Paso, Pres.; Dr. R. P. O'Bannon, 1216 Pennsylvania, Fort Worth, Secy.

Texas Urological Society, Wichita Falls, January 21-22, 1961. Dr. Joseph Mitchell, Dallas, Pres.; Dr. O. C. Berg, 1300 8th St., Wichita Falls, Secy.

Twelfth District Society, Waco, January 10, 1961. Dr. Bernard Rosen, Corsicana, Pres.; Dr. R. L. Campbell, 205 S. 15th St., Corsicana, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 23-25, 1961. Dr. Max E. Johnson, San Antonio, Pres.; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

FEBRUARY

American Academy of Allergy, Washington, D. C., Feb. 6-8, 1961. Dr. Bram Rose, Montreal, Canada, Pres.; Dr. Joseph Noah, 100 N. Euclid Ave., St. Louis 8, Mo., Secy.

Texas Association of Obstetricians and Gynecologists, Houston, Feb. 10-11, 1961. Dr. Oran V. Prejean, Dallas, Pres.; Dr. Hugh W. Savage, 815 Fifth Ave., Fort Worth, Secy.

Texas Proctologic Society, Houston, February, 1961. Dr. J. Wade Harris, Houston, Pres.; Dr. H. Gray Carter, 915 St. Joseph St., Dallas, Secy.

First District Society, Pecos, Feb. 3, 1961. Dr. Russell Holt, El Paso, Pres.; Dr. Gordon L. Black, 1501 Arizona St., El Paso, Secy.

National and Regional

American Academy of Dermatology and Syphilology. Dr. Francis W. Lynch, St. Paul, Minn., Pres.; Dr. Robert R. Kierland, Mayo Clinic, Rochester, Minn., Secy.

American Academy of General Practice, Miami, April 17-20, 1961. Dr. John G. Walsh, Sacramento, Calif., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Association of Obstetricians and Gynecologists. Dr. Robert A. Ross, Chapel Hill, N. C., Pres.; Dr. Clyde L. Randall, 216 Summer St., Buffalo 22, Secy.

American Academy of Pediatrics, Washington, D C., April 10-12, 1961. Dr. George M. Wheatly, New York, N.Y., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Executive Director.

American Academy of Ophthalmology and Otolaryngology. Dr. Dohrman K. Pischel, 940 Post St., San Francisco, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester Minn., Secy.

American Association for Maternal and Infant Health. Dr. M. Edward Davis, Chicago, Pres.; Mrs. Patricia Dorr, 116 S. Michigan Ave., Chicago 3, Executive Director.

American Association for Thoracic Surgery, Philadelphia, April 24-26, 1961. Dr. John H. Gibbon, Jr., Philadelphia, Pres.; Dr. Hiram T. Langston, 7730 Corondelet Ave., St. Louis 5, Secy.

American Association of Genito-Urinary Surgeons. Dr. Reed M. Nesbitt, Ann Arbor, Mich., Pres.; Dr. W. J. Engel, 2020 E. 93rd St., Cleveland 6, Secy.

American Association of Plastic Surgeons, May 17, 1961. Dr. Herbert Conway, New York City, Pres.; Dr. Thomas D. Cronin, 6615 Travis St., Houston 25, Secy.

American Cancer Society. Dr. Warren H. Cole, Chicago, Pres.; Mr. Granville Whittlesey, 521 West 57th St., New York 19, Secy.

American College of Allergists, Dallas, March 12-17, 1961. Dr. Giles A. Koelsche, Rochester, Minn., Pres.; Mr. Eloi Bauers, 2160 Rand Tower, Minneapolis, Executive Vice-Pres.

American College of Chest Physicians, New York City, June 22-26, 1961. Dr. M. Jay Flipse, 550 Brickell, Miami, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Director.

American College of Gastroenterology, Cleveland, Ohio, Oct. 22-25, 1961. Dr. Henry Baker, Boston, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Obstetricians and Gynecologists. Dr. John I. Brewer, Chicago, Pres.; Mr. Donald F. Richardson, P. O. Box 749, Chicago 90, Executive Secy.

American College of Physicians, Miami Beach, May 8-12, 1961. Dr. Chester S. Keefer, Boston, Pres.; Dr. E. C. Rosenow, Jr., 4200 Pine St., Philadelphia 4, Executive Director.

American College of Radiology. Dr. Earl E. Barth, Chicago, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American Congress of Physical Medicine and Rehabilitation. Dr. F. J. Kottke, Minneapolis, Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago 2, Executive Secy.

American College of Surgeons. Dr. Owen H. Wangensteen, Minneapolis, Pres.; Dr. William E. Adams, 950 E. 59th St., Chicago, Secy.

American Dermatological Association. Dr. Marion B. Sulzberger, New York, Pres.; Dr. Wiley M. Sams, 308 Ingraham Bldg., Miami 32, Secy.

American Gastroenterological Association, Chicago, May 25-27, 1961. Dr. Hugh Butt, Rochester, Minn., Pres.; Dr. Wade Volwiler, Dept. of Medicine, University of Washington, Seattle 5, Secy.

American Gynecological Society. Dr. Karl H. Martzloff, Portland, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd. N.W., Washington 7, D.C., Secy.

American Heart Association. Dr. A. Carlton Ernstene, Cleveland, Pres.; Mr. William F. McGlone, 44 E. 23rd, New York 10, Secy.

American Hospital Association. Dr. Russell A. Nelson, Baltimore, Md., Pres.; Dr. Edwin L. Crosby, 18 E. Division Street, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, Lake Placid Club, May 23-25, 1960. Dr. Fletcher D. Woodward, Charlottesville, Va., Pres.; Dr. C. S. Nash, 708 Medical Arts Bldg., Rochester, N. Y., Secy.

American Neurological Association, Atlantic City, June 12-14, 1961. Dr. H. G. Wolff, New York City, Pres.; Dr. M. D. Yahr, 710 W. 16th St., New York 32, Secy.

American Ophthalmological Society, Hot Springs, Va., May 17-19, 1961. Dr. Edwin B. Dunphy, Boston, Pres.; Dr. Joseph A. C. Wadsworth, 108 E. 68th, New York 21, Secy.

American Orthopaedic Association, Yosemite National Park, May 22-25, 1961. Dr. Edwin F. Cave, Boston, Pres.; Dr. Lee Ramsay Straub, 535 E. 70th St., New York 21, Secy.

American Pediatric Society, Atlantic City, May 2-5, 1961. Dr. L. Emmett Holt, New York City, Pres.; Dr. Conrad M. Riley, Denver General Hospital, Denver 4, Secy.

American Proctologic Society. Dr. H. R. Reichman, Salt Lake City, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, Chicago, May 7-12, 1961. Dr. Robert H. Felix, Bethesda, Md., Pres.; Austin M. Davies, 1270 Avenue of the Americas, New York 20, Exec. Assistant.

American Public Health Association, Detroit, Nov. 13-17, 1961. Miss Marion W. Sheahan, New York 19, Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Los Angeles, Oct. 22-27, 1961. Dr. J. Earl Remlinger, Jr., Wilmette, Ill., Pres.; Dr. Robert L. Patterson, 612 Bershire Drive, Pittsburgh 15, Secy.

American Society of Clinical Pathologists. Dr. John J. Clemmer, Albany, Pres.; Mr. Claude E. Wells, 445 Lake Shore Drive, Chicago 11, Executive Secy.

American Surgical Association, White Sulphur Springs, W. Va., April 3-6, 1960. Dr. Warren H. Cole, Chicago, Pres.; Dr. William Altemeier, Cincinnati General Hospital, Cincinnati 29, Secy.

American Urological Association, Los Angeles, May 22-25, 1961. Dr. John E. Heslin, Albany, N. Y., Pres.; Mr. William P. Didusch, 1120 N. Charles St., Baltimore 1, Executive Secy.

Association of American Physicians and Surgeons, Inc., Grove Park Inn, Asheville, N. C., Oct. 12-14, 1961. Dr. R. J. Moorhead, Yazoo City, Miss., Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Director.

International College of Surgeons, U. S. Chapter. Dr. Henry Meyerding, Rochester, Minn., Pres.; Dr. Ross T. McIntire, 1516 Lake Shore Dr., Chicago, Executive Director.

National Tuberculosis Association, Cincinnati, Ohio, May 21-26, 1961. Mr. Herbert C. De Young, Chicago, Pres.; Judge Herman Dehnke, 213 Main, Harrisville, Mich., Secy.

Radiological Society of North America. Dr. Lawrence L. Robbins, Boston, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

South Central Association of Blood Banks, New Orleans, March 3-4, 1961. Dr. Kenneth M. Heard, Jackson, Miss., Pres.; L. Ruth Guy, Ph.D., Room 1101, Stoneleigh Hotel, Dallas, Secy.

Southern Medical Association, Dallas, Nov. 6-9, 1961. Dr. Lee F. Turlington, Birmingham, Ala., Pres.; Mr. Robert F. Butts, 2601 Highland Ave., Birmingham 5, Ala., Executive Secy.

Southern Psychiatric Association. Dr. David A. Wilson, Charlottesville, Va., Pres.; Dr. Richard Proctor, Winston-Salem, N. C., Secy.

Southern Surgical Association. Dr. Francis Massie, Pres.; Dr. John D. Martin, Jr., Emory University, Ga., Secy.

Southwest Allergy Forum, Padre Island, April 9-11, 1961. Dr. S. H. Jaros, Harlingen, Pres.; Dr. H. E. Hawkins, 105 W. Elizabeth, Brownsville, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 24, 1961. Dr. Robb Rutledge, Fort Worth, Chm.; Mrs. Ira Frances Ball, Westchester House, Fort Worth, Secy.

Southwestern Medical Association, Las Vegas, Oct. 19-21, 1961. Dr. Sherwood Burr, Tuscon, Pres.; Dr. Merle Thomas, 1501 Arizona Building, El Paso, Secy.

Southwestern Society of Nuclear Medicine, San Antonio. Dr. Peter E. Russo, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 2711 Oak Lawn Avenue, Dallas, Secy.

Southwestern Surgical Congress, St. Louis, April 10-13, 1961. Dr. Howard D. Cogswell, Tucson, Ariz., Pres.; Mary O'Leary, 813 Medical Arts Bldg., Oklahoma City, Exec. Secy.

Tri-State Medical Assembly. Dr. R. B. Langford, Shreveport, Pres.; Dr. J. W. Wilson, Jr., 940 Margaret Place, Shreveport, Secy.

United States-Mexico Border Public Health Association, San Diego, June 25-29, 1961. Dr. Adán Mercado Cerda, Tamaulipas, Mexico, Pres.; Dr. Ulpiano Blanco, El Paso, Secy.

State

Texas Academy of General Practice, Houston, Oct. 15-18, 1961. Dr. Jack M. Partain, San Antonio, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine. Dr. Robert Mitchell, Plainview, Pres.; Dr. Sam Arnett, 2609 19th St., Lubbock, Secy.

Texas Air-Medics Association, Galveston, April 22-25, 1961. Dr. C. D. Henry, San Antonio, Pres.; Dr. C. F. Miller, Box 1338, Waco, Secy.

Texas Association for Mental Health, Galveston, 1961. Mr. William R. Ransone, Dallas, Pres.; Mrs. Lawrence Marcus, 3525 Arrowhead Drive, Dallas, Secy.

Texas Association of Public Health Physicians, Galveston, April 22-25, 1961. Dr. L. P. Walter, Austin, Pres.; Dr. W. V. Bradshaw, Jr., 1800 University Drive, Fort Worth, Secy.

Texas Club of Internists. Dr. W. W. Bondurant, Jr., San Antonio, Pres.; Dr. T. Haynes Harvill, Medical Arts Building, Dallas 1, Secy.

Texas Chapter, American Academy of Pediatrics, Galveston, April 22-25, 1961. Dr. J. T. Bennett, El Paso, Pres.; Dr. W. W. Kelton, Jr., 108 West 30th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Galveston, April 22-25, 1961. Dr. Hiram M. Anderson, San Angelo, Pres.; Dr. Milton V. Davis, 3707 Gaston Avenue, Dallas, Secy.-Treas.

Texas Dermatological Society, Galveston, April 22-25, 1961. Dr. M. W. Harrison, Houston, Pres.; Dr. D. Shelton Blair, 1609 Medical Arts Building, Dallas, Secy.-Treas.

Texas Diabetes Association, Galveston, April 22-25, 1961. Dr. James A. Greene, Houston, Pres.; Dr. John W. Chriss, 2436 Morgan Street, Corpus Christi, Secy.-Treas.

Texas Division, American Cancer Society. Dr. David A. Todd, San Antonio, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Heart Association. Dr. Robert E. Leslie, El Campo, Pres.; Mr. Ernest T. Guy, 404 Jesse H. Jones Library Building, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 15-17, 1961. Dr. F. R. Higginbotham, San Antonio, Pres.; Mr. O. Ray Hurst, 1905 N. Lamar, Austin, Executive Director.

Texas Industrial Medical Association, Galveston, April 22-25, 1961. Dr. Noble B. Daniel, Texarkana, Pres.; Dr. J. G. Burdick, Pasadena, Secy.

Texas Neuropsychiatric Association, Galveston, April 22-25, 1961. Dr. Clarence S. Hoeksstra, Dallas, Pres.; Dr. E. Ivan Bruce, Jr., Galveston, Secy.-Treas.

Texas Ophthalmological Association, Galveston, April 22-25, 1961. Dr. Otto Lippmann, Austin, Pres.; Dr. James H. Scruggs, Waco, Secy.

Texas Orthopedic Association, Galveston, April 22-25, 1961. Dr. Ike S. McReynolds, Houston, Pres.; Dr. Margaret Watkins, Dallas, Secy.-Treas.

Texas Otolaryngological Association, Galveston, April 22-25, 1961. Dr. August J. Streit, Amarillo, Pres.; Dr. Louis E. Adin, Jr., Dallas, Secy.

Texas Pediatric Society, Harlingen, Sept. 22-23, 1961. Dr. James N. Walker, Ft. Worth, Pres.; Dr. C. E. Gilmore, 811 Bonham, Paris, Secy.

Texas Physical Medicine and Rehabilitation Society, Galveston, April 22-25, 1961. Dr. Edward M. Krusen, Dallas, Pres.; Dr. Oscar Selke, Medical Professional Building, Houston, Secy.

Texas Public Health Association, Fort Worth, March 5-8, 1961. Mrs. Maggie Belle Davis, Corpus Christi, Pres.; Mr. Joseph N. Murphy, Jr., Box 4012, Austin 51, Executive Secy.

Texas Rheumatism Association. Dr. Howard C. Coggeshall, Dallas, Pres.; Dr. J. Morris Horn, 3707 Gaston, Dallas, Secy.

Texas Society of Anesthesiologists, Galveston, April 22-25, 1961. Dr. Randle J. Brady, Houston, Pres.; Dr. Eugene L. Slataper, Houston, Secy.

Texas Society of Athletic Team Physicians, Galveston, April 22-25, 1961. Dr. W. S. Horn, Jr., Fort Worth, Pres.; Dr. Louis Levy, Fort Worth, Secy.-Treas.

Texas Society of Gastroenterologists and Proctologists, Galveston, April 22-25, 1961. Dr. H. Gray Carter, Dallas, Pres.; Dr. A. C. Broders, Jr., Temple, Secy.-Treas.

Texas Society of Pathologists, Inc., Galveston, April 22-25, 1961. Dr. O. J. Wollenman, Jr., Fort Worth, Pres.; Dr. Vernie A. Stembridge, Dallas, Secy.-Treas.

Texas Society of Plastic Surgeons, Galveston, April 22-25, 1961. Dr. J. B. Patterson, Fort Worth, Pres.; Dr. Raymond O. Brauer, Houston, Secy.-Treas.

Texas Society on Aging, San Antonio, Dec. 1-2, 1961. Dr. H. J. Friedsam, Denton, Pres.; Mrs. William B. Ruggles, 3701 Stratford, Dallas, Secy.-Treas.

Texas Society of Ophthalmology and Otolaryngology. Dr. Lyle J. Logue, Houston, Pres.; Dr. Oliver Suehs, 14 Medical Arts Square, Austin, Secy.

Texas Surgical Society, Dallas, April 2-4, 1961. Dr. Robert L. Sewell, Fort Worth, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Galveston, April 22-25, 1961. Dr. Edward R. Rowe, Galveston, Pres.; Dr. John C. Long, Plainview, Secy.-Treas.

Texas Tuberculosis Association, Corpus Christi, March 16-18, 1961. Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

District

Second District Society, Snyder, March 18, 1961. Dr. M. J. Loring, Midland, Pres.; W. S. Parks, Jr., 2009 W. Wall, Midland, Secy.

Third District Society, Amarillo, April 15, 1961. Dr. James L. Johnson, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society, San Angelo, May, 1961. Dr. J. G. Bodenhamer, Mason, Pres.; Dr. M. D. Knight, 234 W. Beauregard, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 8-9, 1961. Dr. John W. Chriss, Pres.; Dr. James Gabbard, 1001 Louisiana, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13th, Austin, Secy.

Eighth District Society, Corpus Christi. Dr. M. Warren Hardwick, Angleton, Pres.; Dr. J. L. Coleman, Box 3346, Victoria, Secy.

Ninth District Society, Bellville, Spring, 1961. Dr. Irving M. Watson, Jr., Conroe; Dr. William E. Sharp, 721 E. Texas, Baytown, Secy.

Tenth District Society. Dr. Bedford Mace, Beaumont, Pres.; Dr. Irving M. Richman, 3280 Fannin St., Beaumont, Secy.

Eleventh District Society, Jacksonville. Dr. Marlin T. Braswell, Henderson, Pres.; Dr. Floyd Verheyden, 813 John St., Jacksonville, Secy.

Thirteenth District Society, Fort Worth, Fall, 1960. Dr. William B. Allensworth, Mineral Wells, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. H. O. Padgett, Marshall, Pres.; Dr. James S. Leeves, Naples, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison. Dr. Andrew Jensen, Denison, Chm.

Dallas Southern Clinical Society Conference, Dallas, March 20-22, 1961. Dr. Frank H. Kidd, Jr., Dallas, Pres.; Millard J. Heath, 433 Medical Arts Bldg., Dallas 1, Executive Officer.

New Orleans Graduate Medical Assembly, New Orleans, March 6-9, 1961. Dr. Maurice E. St. Martin, New Orleans, Pres.; Mrs. Irma B. Sherwood, 430 Tulane Ave., New Orleans 12, Executive Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. Frank J. Lee, 1300 8th, Wichita Falls, Chm.

Oklahoma City Clinical Conference, Oct. 23-25, 1961. Dr. Vernon D. Cushing, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 10-12, 1961. Dr. C. Forrest Jorns, Houston, Pres.; Mrs. W. H. Dahme, 412 Jesse H. Jones Library Bldg., Houston 25, Exec. Secy.

Private Clinics and Hospitals. Dr. Vance Terrell, Stephenville, Pres.; Mr. B. J. Warren, Deaton Hospital, Galena Park, Secy.

Board Examinations

Texas State Board of Examiners in Basic Sciences, Austin, Houston, Galveston and Dallas. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Anderson, Chief Clerk, State Office Bldg., 201 E. 14th St., Austin.

Texas State Board of Medical Examiners. Dr. M. H. Crabb, Fort Worth, Secy.; Mrs. Carolyn H. Millard, 1714 Medical Arts Bldg., Fort Worth, Assistant Secy.